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Quarterly Statement

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THE PALESTINE EXPLORATION FUND

NOTES AND NEWS.

An important change has been made in the executive branch of the Society. Mr. Walter Besant, who has for some time been practically an Honorary Secretary, has now formally resigned his post as Secretary and been elected by the Committee their Honorary Secretary. He finds that other work, which he cannot refuse or postpone, now so much presses upon him that he can no longer, as heretofore, give the time and attention necessary for the proper management of the affairs of the Fund. He proposes, however, for the present to continue his services as adviser, and can generally be found at the Society's offices in the afternoon by appointment.

Mr. George Armstrong, who has been connected with the Society almost continuously since the year 1871, has been appointed Assistant Secretary. Mr Armstrong went out to Palestine in November, 1871, in order to commence the Survey. In 1875 he came home with Captain Conder, and remained at home drawing the maps and working out the observations while Col. Kitchener finished the Survey of Western Palestine. In 1881 he went out again with Captain Conder in order to survey the Eastern part of the country. Since his return he has been employed in the office as draughtsman. Most of the maps, drawings, and illustrations which have recently appeared are Mr. Armstrong's work. He will continue this part of his work. His appointment will give great satisfaction to the many friends of the Fund who have made his acquaintance.

The first practical effect of his appointment will be that all cheques and postal orders *should be now payable to his order*. They should also be crossed to Coutts and Co. A better plan, and one which is much more convenient for the Committee, as it ensures safety and saves clerical labour, is for every subscriber to fill up a form and give it to his banker, instructing him to pay on the 1st of January his annual subscription to the Society.

The year 1887 was marked by many important discoveries:—

(1) First in importance, perhaps, must be placed Herr Schick's discovery of the Byzantine pavement (*see* p. 17, *infra*), which in the opinion of most cannot be anything other than the open space made and paved by Constantine in front of his group of churches. It is of less importance, but it is still interesting to ascertain that on this pavement stood the vaulted street, long lost, described in Crusading accounts. A fuller note on this discovery appears in this number.

Next must be mentioned the Sidon tombs. Professor Hayter Lewis has

given an account of these, which will be found in its place, together with Hamdi Bey's own paper on the subject, republished by permission of the Editor, from the *Revue Archeologique*. In this place we may only point out that no more valuable and interesting find of this kind has ever been made. For drawings and photographs of the tombs we must now wait until Hamdi Bey's promised work on the subject appears.

(3) The district of Jaulan, the Golan of Manasseh, which has been surveyed, is 39 miles in length at its longest points and 18 in breadth. It comprises an area of 560 square miles. On the best map of Palestine there are found about 150 names. On Schumacher's there are 600, being the names of ruined towns, springs, ancient highways, remnants of oak forests, perennial streams, great fields of dolmens, with some remarkable volcanic features. The volcanic mountain, Tell Abu en Nida, rises to the height of 4,123 feet, and that called Tell Abu Yusef to the height of 3,375 feet. Herr Schumacher has drawn upwards of 152 plans and sketches of the country. He has collected a great variety of information on the manners and customs of the people. He has made special plans of the hot springs, &c., of Amatha, the Zaphon of Joshua xiii, 27, and of Kulat el Husn-Gamala, Susitha and Fîk.

The district of Northern Ajlûn, also surveyed, contains 220 square miles, a population of 10,460, and shows on the map 334 names of places. There are in the Memoir detailed plans of 100 places – churches, theatres, vaults, mausoleums, temples, walls, columns, capitols, street pavements, sarcophagi, caves, cisterns, birkets, aqueducts, and ornamental work; there are collections of mason's marks, Greek inscriptions, drawings of dolmens and stone walls; and there are detailed plans of Umm Keis (Gadara) and Beit Ras (Capitolias).

The district contains about a thousand dolmens scattered over extensive fields; the fertility of the soil is inferior to that of the Hauan; the water supply is chiefly derived from cisterns; there are everywhere patches of forest, now chiefly oak, though the remains of oil presses show that there were previously olives. Herr Schumacher gives also an account of the inhabitants, who are chiefly Moslems.

(4) A capital in white marble, found in the Temple area, and engraved for the January (1887) *Quarterly Statement*, has proved of the highest interest for architects. It is of Ionic-Byzantine style, and is said by Mr. P. Pullan, one of the best authorities on the subject, to be a work of the eighth or ninth century.

(5) The Recovery of the ancient wall of Tiberias with its Acropolis. It is now proved that the Herodian city was no mean little Galilean village, but a noble city, with a great wall three miles in length, and a stately citadel.

(6) The attempted reading of the Hittite Inscriptions by Captain Conder. There have been many attacks made upon his method, which is put forward by the Committee not as the true solution of the problem, but as Captain Conder's solution. He is himself confident that in the main his method will be adopted.

(7) The publication by Mr. Guy le Strange of the catalogue of Arab writers who have spoken of the Dome of the Rock and the Church of the Holy Sepulchre. So many loose statements have been made as to what Arab historians have said upon this subject that it was most desirable to get

once for all an exact statement of what has been written. Had this been done before, a great deal of controversy might have been saved.

(8) Herr Schick has discovered what he believes to be the remains of Herod's amphitheatre (*Quarterly Statement*, 1887, p. 161).

(9) Herr Schumacher has sent home his Survey of Pella and the adjoining district. This will be printed in the same manner as the Survey of the Jaulan, and will be presented to subscribers. The memoir on this interesting place (where the Christians retreated on the outbreak of the troubles with the Romans) contains—(I.) a plan of the ruins, valley, &c., on the scale of six inches to the mile; (II.) about a dozen photographic views, with upwards of 40 plans and sketches; (III.) plans of the ruined tower Kh-Fahl, the Acropolis, two temples, the mausoleum, the cemetery covered with sarcophagi, certain curious caves, the great Basilica, a mound with other caves having stone doors, hot springs, and one Greek inscription. There are also 83 pages of description. We have also to thank Herr Schumacher for sending many notes of objects of interest observed by himself from time to time.

This is a very fair record of work for the year. As for 1888, it remains to be seen what will be done in the way of discovery. As regards publications, we have already announced that we intend to give to subscribers Schumacher's "Survey of the Jaulân" and his "Survey of Pella and Northern Ajlûn," so printed that they may be bound up separately in volume form uniform with Conder's "Tent Work."

We have received, but must keep over for the present, Dr. Post's narrative of his scientific expedition in the Trans-Jordanic region in the spring of the year 1886, with an account of the flora in the region round Damascus. This will be published immediately. Many of the plants are new.

Subscribers will please note that publications announced as nearly ready are often delayed by some cause for which the Secretary is not responsible. There has been, for instance, a great deal of delay about the Catalogue of Photographs. This is now ready. And about the List of Old Testament Names. This is also now ready. And about the New Testament Names. This list is in the printer's hands. And about the Index of the "Survey." This now wants only the Hebrew portion, which is daily expected.

The same remarks apply to the Pilgrim's Text Society. Two works are in the press and almost ready. We hope to be more expeditious in our productions this year.

The "Memoirs of Twenty-One Years' Work" is now in its third thousand. Subscribers *are earnestly requested to use this book as a means of showing what the work has been, and what remains to be done.* Copies are given to every subscriber who wishes to have one, and additional copies can be procured at a great reduction in the price, *by subscribers only*, by writing to the central office.

Will all the subscribers to the Palestine Fund remember—(1) that it helps the Committee very much if subscriptions are paid early in the year? (2) Next, that it saves a great deal of trouble if they are paid to Coutts & Co. direct by a Banker's order? and (3) That whenever they are due it saves a great deal of labour if they are paid without waiting for a reminder? The clerical staff of

the Society is very small, and it is greatly desired not to increase the management expenses, and not to overburden the work of the office.

The following books are now published uniform in size and appearance :— Conder's "Tent Work;" Conder's "Heth and Moab;" Schumacher's "Across the Jordan;" "The Memoirs of Twenty-One Years' Work;" Conder's "Syrian Stone Lore." Subscribers can have the whole set, together with Hull's "Mount Seir," for 25*s.* carriage free.

Mr. Armstrong has prepared a list of the photographs belonging to the Society arranged alphabetically according to those Bible names which are illustrated by views. This list is now ready. Those who wish for a copy may send in their names.

The long-promised List of Old Testament Names, with their identifications, is now ready.

The income of the Society, from September 13th to December 22nd, 1887, inclusive, was—from subscriptions and donations, £461 10*s.* 0*d.*; from all sources, £498 5*s.* 11*d.* The expenditure during the same period was £415 4*s.* 4*d.* On December 22nd the balance in the Banks was £315 12*s.* 10*d.*

Subscribers who do not receive the *Quarterly Statement* regularly, are asked to send a note to the Secretary. Great care is taken to forward each number to all who are entitled to receive it, but changes of address and other causes give rise occasionally to omissions.

While desiring to give every publicity to proposed identifications and other theories advanced by officers of the Fund and contributors to the pages of the *Quarterly Statement*, the Committee wish it to be distinctly understood that by publishing them in the *Quarterly Statement* they neither sanction nor adopt them.

The only authorised lecturers for the Society are—

(1) Mr. George St. Clair, F.G.S., who has lately returned from his Eastern tour, and is giving Lectures for the Society in all parts of Great Britain. His subjects are—
   (1) *The Buried City of Jerusalem*, and General Exploration of the Holy Land. Numerous diagrams.
   (2) *Buried Cities of the East.* Numerous diagrams.
   (3) *Sight-seeing in Palestine.* Lantern views, where local help can be obtained.

   Address: G. St. Clair, Bristol Road, Birmingham; or at the Office of the Fund.

(2) The Rev. Henry Geary, Vicar of St. Thomas's, Portman Square. His lectures are on the following subjects :—
   The Survey of Western Palestine, as illustrating Bible History.
   Palestine East of the Jordan.
   The Jerusalem Excavations.
   A Restoration of Ancient Jerusalem. Illustrated by original photographs shown as "dissolving views."

(3) The Rev. James King, Vicar of St. Mary's, Berwick. His subjects are as follows :—
   The Survey of Western Palestine.
   Jerusalem.
   The Hittites.
   The Moabite Stone and other monuments.

(4) The Rev. James Neil, formerly Incumbent of Christ Church, Jerusalem.

THE SARCOPHAGI OF SIDON.

THE chief portion of the following appeared in the "The Times" of December 8th, 1887 :—

During a recent visit to Constantinople I was enabled, by the kind introduction of friends, and by a letter from the keeper of the Greek and Roman antiquities at the British Museum, to obtain interviews with his Highness Edhem Pasha (late Grand Vizier), and with his Excellency Hamdi Bey. They received me with great kindness and courtesy, showed to me numerous and very beautiful photographs of the sarcophagi, and explained to me such details of the colouring, &c., as could not be there shown.

One of the interviews with Hamdi Bey was at the Museum, where some of the sarcophagi are placed, uncovered, and I could, therefore, see the style of carving of their decorations, which is in an absolutely perfect state.

Of the remainder, and of the sculpture and painting, I can judge only by the photographs and the descriptions given by his Excellency Hamdi Bey personally to myself, and which are to a large extent in his own words. They may form useful addenda to the very admirable account given in the last *Quarterly Statement*, and also to Hamdi Bey's own description in the last number of the "Revue Archéologique." I did not see these until after my return to London. The shaft was about 16 feet by 13 feet, and 50 feet deep to the floor of the tomb at its base. In chambers leading out of it, of which he gives plans and sections in the "Revue," were found the following :

Three Phœnician anthropoid sarcophagi, two of these being in white marble (one male and the other female), and the third in black marble (female).

Seven sarcophagi of Greek design of different epochs, carved out of Greek marble blocks.

Three of these are similar, and are simply in the form of pedestals, without any figure sculpture, but with beautifully moulded and enriched cornices and bases, which much resemble those of the sarcophagus in the British Museum brought from Crete, and numbered 44*a*. The covers are coped, and with pediments and acroteria. The fourth is of the peculiar tall Lycian form, surmounted by a curved roof with gables, of which we have two good examples in the British Museum. But, in place of the usual panels in and beneath the gables, the Sidon tomb has sphinxes and other sculptures, which are purely Greek. (It is to be noted that although the Lycian tombs at the British Museum have the usual panels, there are carved in them winged sphinxes of the well-known Greek form, some sitting and others recumbent.) On one of the long sides there are splendidly sculptured two cars with four horses each in full career. On the other side is a hunting scene. The fifth sarcophagus (not in the Lycian form) is equally well sculptured with Assyrian subjects.

The sixth represents a Greek Ionic temple in antis, but with three-

quarter columns only between the two antæ, and three-quarter columns to the sides. Between each two columns or antæ is a female figure showing signs of deep affliction. In all there are eighteen of these statues. The temple rests on a stylobate, having a finely moulded base and surbase, the dado being enriched with figures, partly sculptured and partly painted. The cover represents the roof of a temple, and in the pediment at each end is a fine group of sculpture. As a curious variation from the temple form, there is along each side, surmounting the cornice, a tablet, on which is carved a funeral procession. Such a decorative feature is not unusual in sarcophagi of late date, one such being in the British Museum, and many in the Louvre ; but they are usually without any mouldings, and I can call to mind no example of such a feature surmounting the cymatium in any temple.

All the above sarcophagi show large remains of coloured decoration, and, as described to me, confirm Hittorff's theories as given in his work on Sicily.

The seventh sarcophagus is the grandest of all. It is out of one block of white marble, about 11 feet long, with a coped and pedimented cover, and having no columnar decoration, but with an enriched cornice and base, the panels between these, on each side, being filled with sculptures of marvellously fine execution. On two of the sides the subject is the chase ; on the other two are represented combats between warriors both on horse and foot. One prominent figure reminded Hamdi Bey of that of Darius in the famous mosaic from Pompeii (and having seen this recently I quite agree with him), and certain characteristics on another of the principal figures induces him to assign it to Alexander.

In any case, there can scarcely be a doubt that the sculptures represent a battle between Greeks and Persians, and most probably between Darius and Alexander. The cover of this magnificent tomb is of the ordinary coped form, but is enriched with rows of heads on the eaves line and on the ridge—a very unusual style of finish, but which may be seen partly carried out on a small scale on one of the Greek sarcophagi figured in Sir C. Fellows's "Asia Minor." At each end of the eaves is a lion. This also reminds one of the lions' heads and fore paws sculptured in the roof of another Lycian tomb figured in the same work, and as may be seen in the tomb (No. 1) in the British Museum.

The architectural details of all these sarcophagi, so far as I can judge from those which I saw and from the photographs of the others, are of the Greek type of the best period, without a trace of Roman influence, and the sculpture appears to be of the highest class. It is altogether different from the bold style of the Pergamus sculpture, and much more nearly resembles the beautifully delicate carving of the Parthenon frieze, of which the horses, the figures, and the drapery of the Sidon monument strongly remind one.

Hamdi Bey thinks that it is probably by Lysippus or his school ; but as to this only some one specially qualified by a study of ancient examples (and such a one no doubt he will consult) could give a definite opinion.

He will have to determine, to begin with, whether the sculpture is the product of an artist accustomed to work in marble, or whether it is not that of one accustomed to work in bronze. I can only venture to suggest, from certain details, that the latter is the case.

But it is not only by the sculpture that this monument has been adorned. It has been so, in the most careful and artistic way, with colouring, which was (and I trust still is) in a perfect state of preservation, and producing a charming effect, each of the different reds, purples, violets &c., being put on in various tints and gradations with great delicacy, gold being sparingly applied and with great judgment. The spears, &c., are of bronze. The flesh of the figures is not coloured.

To show the care which has been taken with this decoration, I may mention that the portions of marble which have been left untinted have been treated in three different ways—viz., (1) by the ordinary finish, (2) by being slightly roughened, and (3) by an exquisitely finished surface such as one finds in the finest Greek sculpture. The reader will, no doubt, have noticed the striking difference between the subjects of these sculptures and those on the grand Greco-Roman sarcophagi, which are so numerous in our Museum. I am fairly well acquainted with those in the Louvre and Vatican collections, and can say that, almost without exception, the sculptures on these (often beautiful) monuments represent mythological scenes. But the Lycian tombs, judging from the engravings in Sir C. Fellows's work, have often such realistic scenes of battle, hunting, and procession as are above described on the Sidon monuments.

As to the date of all these works, except the well-known Phœnician sarcophagus (to which I allude below), there is no guide whatever beyond what the sculptures tell. The absence of any inscription is not surprising, inasmuch as very few of the sculptured sarcophagi (chiefly Græco-Roman) left to us are inscribed, and I have Hamdi Bey's authority for saying that there is not a line, not a word, which could give a clue to the date, nor anything definite as to the persons for whom these splendidly adorned tombs were made.

How was it that a great sepulchre should have been hewn 50 feet deep in the solid rock, chambers carved out from it, these immense blocks of the finest marble brought from Greece, carved by the best Greek sculptors, painted (it would seem) by the best Greek artists, and then lowered into their resting-places in times of no great antiquity, and yet not a single record of any kind be left to give a clue to the names of those for whom such great works were done? Possibly in the careful study which Hamdi Bey is giving to the subject this question may receive an answer.

It will be months before the sarcophagi can be seen by any one, as it would be highly dangerous to expose them, however slightly, to the dust and damp of a Constantinople winter, as would be the case if they were uncovered before being placed in the building now being erected for their reception, and in which it is proposed to enclose them in glass cases as has been done with the Archaic statues recently found in the Acropolis at Athens. To preserve their colouring during their removal from Sidon

the greatest care had to be taken. The workmen were required to wear gloves, and the sculptures were protected by having cotton wool stuffed behind them most carefully and round them. This was done by Hamdi Bey himself, the whole then being covered by layer upon layer of soft material.

The last sarcophagus to which I shall allude is the famous one of the Priest and King Tabnite, the account of which occupies a large portion of Hamdi Bey's article in the last "Revue Archéologique." It is of black marble, the inscription on it showing it to have been the tomb of the son of Esmunazar, King of Sidon (I give the name as spelt on the tablet in the Louvre). But Tabnite's tomb differs in many important particulars from that of his father. Both are anthropoid, but Esmunazar's, of which we have a copy in the British Museum, shows the human form only in the head and shoulders, the lines of the sarcophagus being carved thence straight down in a tapering form to the raised tablet which marks the position of the feet. This is the case also with 10 out of the 11 other sarcophagi in the Louvre brought from Sidon, and in the only one (I believe) in the British Museum brought from the same site. But Tabnite's tomb has the flowing lines which may be seen in the numerous Egyptian anthropoid sarcophagi which are in the same collection and in our own Museum, and which give to some extent the outlines of the figures. One corner of this tomb has been cut off, thus giving it an irregular shape, and this part has been polished, and a band of Egyptian hieroglyphs, which passes round the block, is carved round this polished corner.

We can scarcely suppose that a king who could afford to have so splendid a tomb made for him would accept an imperfect block of marble for it, and it seems likely, therefore, that it was made originally for another person in ancient times in Egypt, and repaired and re-used at a later period for Tabnite.

The descriptions and drawings of this interesting tomb will form one of the most attractive chapters in the detailed and illustrated account of the Sidon monuments which Hamdi Bey is now preparing for publication. I should much liked to have given sketches of many of these sarcophagi, and I pointed out to his Excellency that by such rough memoranda the curiosity of the artistic world would be much more excited than by any description in writing, and that it would be a good preliminary announcement of his forthcoming book ; but his particular wish, to which I, of course, yielded, is that he himself should be the first person to publish any drawings whatever of these splendid monuments ; and considering the amount of care which he took in their preservation, every one will be glad to concede to him the full honour and credit of first conveying the description of them to the public in an authentic form. No doubt it would have been better to have retained them on their ancient site, if they could have been so retained with safety. But my experience in the East makes me confident that such a course would have resulted in the eventual destruction of these splendid monuments by Moslem fanatics and Arab dealers.

Athenæum Club. T. Hayter Lewis.

ACCOUNT OF A ROYAL NECROPOLIS DISCOVERED AT SAIDA BY HAMDI BEY.

(*From the Revue Archéologique*).

I ARRIVED at Smyrna, on April 20th, 1887, with the object of taking part with my friend and colleague, Demosthenes Bey-Baltazzi, in the Archæological Mission that had been entrusted to us. It was necessary that we should proceed to Saida to study a valuable necropolis recently discovered, and to draw up from its deep vaults the series of sarcophagi which are about to be described. On reaching Saida (April 30th) we immediately repaired to the ground; and I descended by means of a rope to the bottom of the large shaft which gave access to the large vaults containing the sarcophagi. This shaft, sunk through a thick layer of limestone, was 13 metres in depth. I visited the vaults, which were seven in number, in succession, and was struck by the value, beauty, and variety of the marble sarcophagi found therein. Out of the seventeen sarcophagi nine were covered with very beautiful many-coloured sculpture.

On the following day we made every effort to proceed with the work of extraction without hindrance; but this was anything but easy, the largest of them measuring 3m. 30 long and weighing nearly 15 tons.

With the friendly help of Sakeh Bey, Governor of Saida, who placed everything we required at our disposal, and the intelligent co-operation of Beshara-Effendi, chief engineer of the vilayet, a tunnel with a drop of 12 per cent. was bored, and all the sarcophagi were drawn out without any accident. The whole work occupied twenty-five days. This valuable necropolis is to be the subject of a detailed monograph. One part of the contents is on the eve of being sent to the Imperial Museum at Constantinople. A second necropolis was discovered by us. With the object of elucidating the description which I am about to make, I add to this memoir a plan and a general plan of both these monuments, which are placed together (see pp. 140 and 141).

At the north-west angle of the vault V of the first necropolis, and above the No. 10 sarcophagus (see plan), we perceived an irregular hole, which hardly admitted of the entrance of a man. As I wanted to know what it could be and where it might end, I had a ladder brought and was easily able to reach it, and to get halfway into it so that I could well examine the interior by the light of a lamp. I easily recognised a Phœnician tomb, which had been despoiled by the violators of the necropolis, by means of this little hole which they had made.

These greedy plunderers struck the walls of the vaults with an iron, and wherever they heard a hollow sound they divined the existence of a tomb or vault on the other side, which they proceeded forthwith to open. This one was entirely empty, but prior to our arrival at Saida some fragments of shapeless bronze had been found.

The question naturally presented itself as to which way the tomb had been dug and from whence the dead, whose bones I there saw, had been introduced. On entering I examined the upper part and was able to see and count five large slabs which closed it above and which were placed transversely on the tomb.

I communicated my observations to my friend Baltazzi-Bey, and we decided on May 22nd to open a shaft in such a way as to fall directly upon these slabs.

The next day, after having cleared away 1m. 20 of vegetable soil, we came upon limestone grit, then making our workmen proceed 2 metres further towards the north we continued to excavate, and on the 24th we could recognise the four walls of a large rectangular shaft bearing marks of a pick-axe.

The large sides from south to north measured 4 metres, the little sides 3m. 20 ; it must be mentioned that the walls of this well were hewn with care. It went down across a layer of very friable limestone grit, and was full of rubbish of the same sort, occasionally mixed with vegetable soil, the workmen found placed in a hollow in the side of the shaft a lamp in the form of a splayed and twisted patera, and resembling those which M. Renan had collected at Saida, and which, according to M. de Saulcy, have been likewise met with in the tombs of the Kings at Jerusalem. At a depth of 5 metres we perceived the upper layers of a wall on the side looking north (see plan) ; evidently we had here a wall forming the entrance to a vault, and we were happy to find that it was perfectly intact.

0m. 50 lower, on the opposite wall, the upper part of a vault appeared, being precisely the one where the desecrated tomb was found. It was not walled, and we could see it was literally crammed with rubbish of the same nature as that which filled the well. The same day other lamps similar to the former one were found.

By May 28th we reached, at a depth of 7m. 50, the bottom of the well ; here the layer of limestone grit (called in this country *ramle*) ended, and hard limestone appeared.

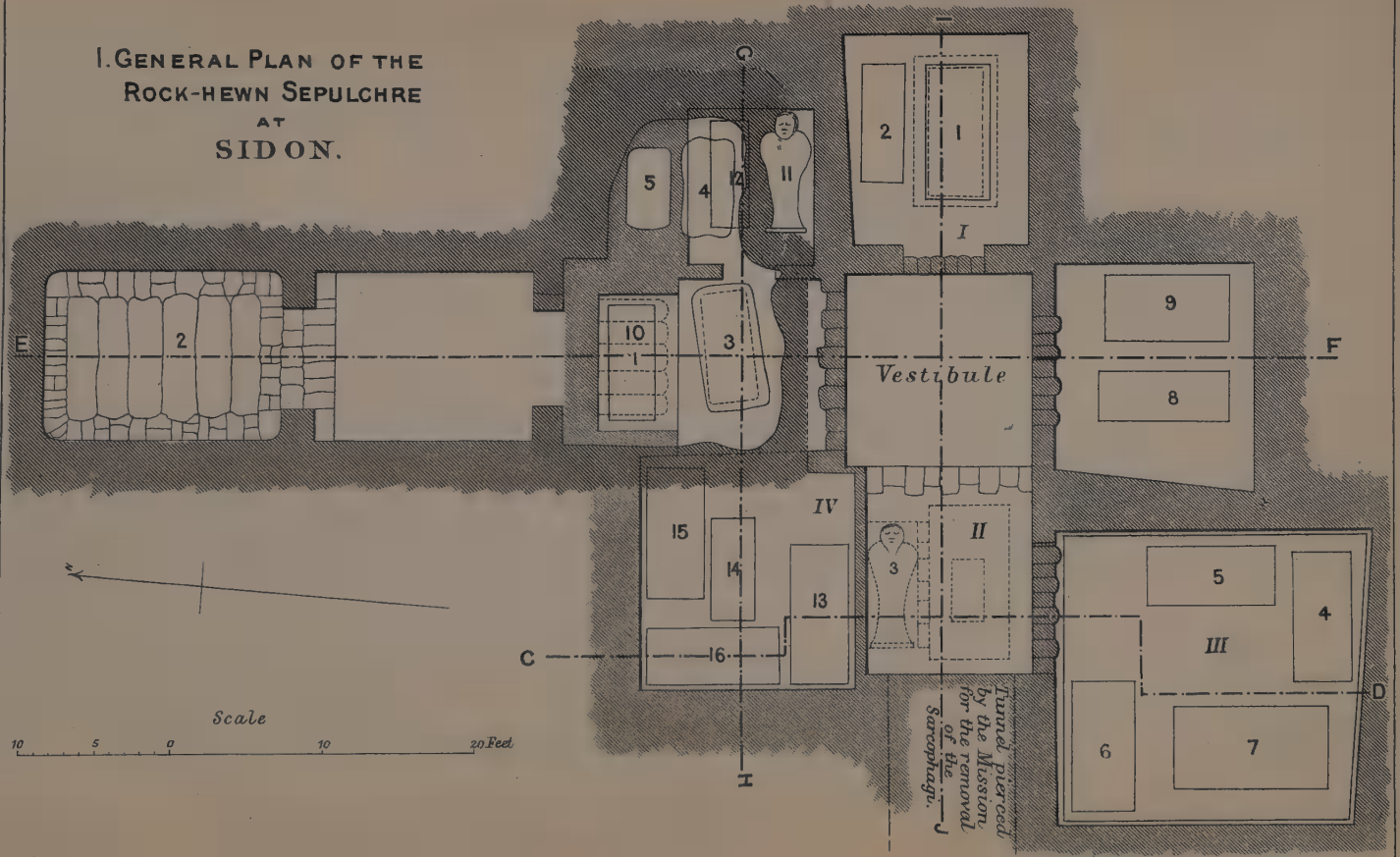
On the 29th, at an early hour, I descended into the shaft, accompanied by Beshara-Effendi, and some workmen ; and I had a breach made in this intact wall by withdrawing some rows.

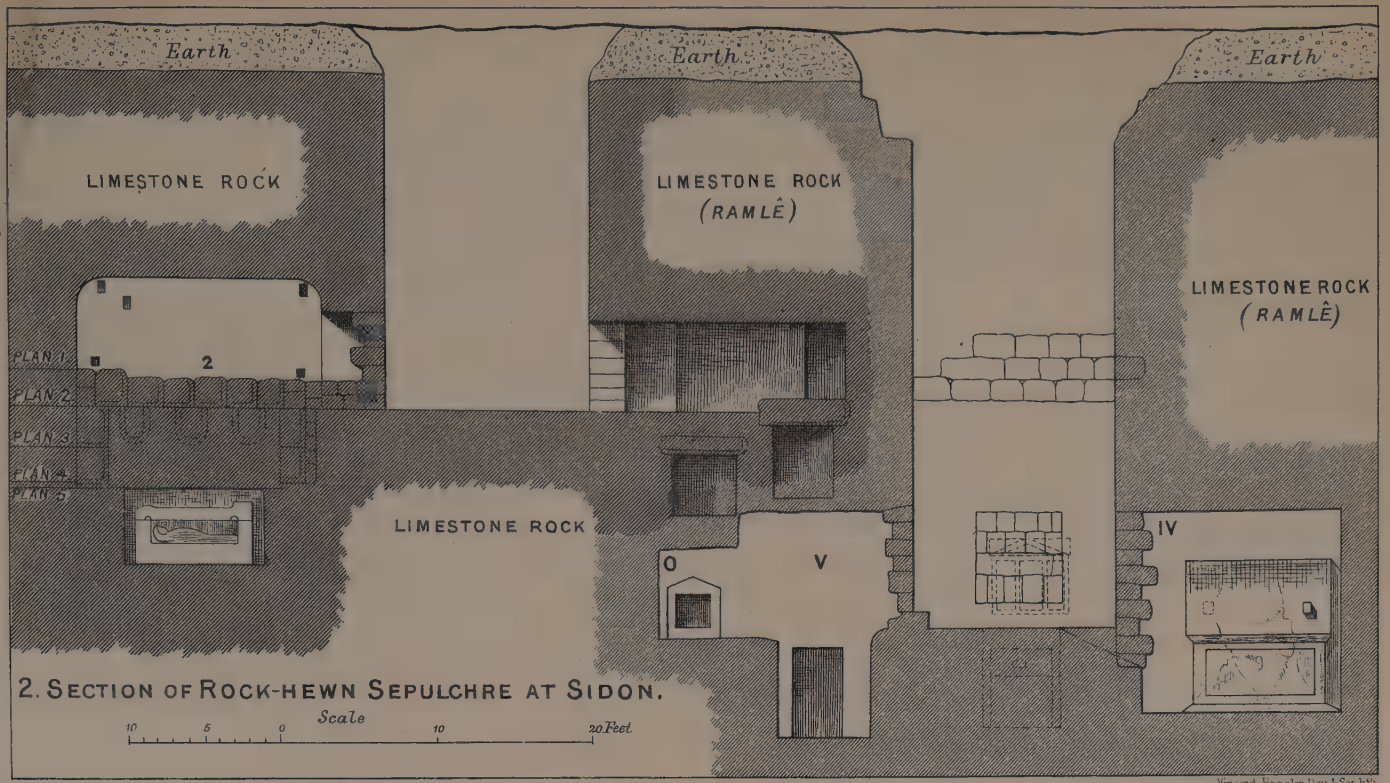
Then, by means of a magnesium lamp I saw that this vault did not contain any sarcophagus, that the ceiling was vaulted, and that it, as well as the walls, was faced with a thick plastering, which plastering had in great part fallen and completely covered the floor.

I also noticed on the walls of the vault large holes, which had been symmetrically bored at intervals, and which were intended for the reception of immense beams, by which, by means of ropes which were fastened on to them, sarcophagi or blocks of stone of immense size could be let down.

At the outset, therefore, I had reason to hope that once the vault was clear we should find slabs, and under the slabs some sarcophagi.

I. General Plan of the Rock-hewn Sepulchre at SIDON.





2. Section of Rock-hewn Sepulchre at Sidon.

Scale
10 5 0 10 20 Feet

Vincent Brooks Day & Son lith

I had the door entirely freed from the wall, which blocked it up, and set the workmen to clear the vault.

The vault measured 4m. 60 by 3m. 40.

It was then that we discovered, in the north-west angle, two bronze candelabra and some terra cotta lamps, which were similar to the preceding ones, and which had been thrown down by the fall of the plastering off the walls and ceiling.

This plastering occasionally reached a thickness of 0m. 20, and was covered over with a thin gray-blue coating.

The candelabra are in good preservation, and have a fine patina ; they are not of equal height. The largest measures 1m. 70, and the other 1m. 55. They are each composed of three parts, and were bound together by a stick running inside the stem ; this wood has completely perished.

The vault being now clear of its incumbrances, I saw that it was paved with six immense blocks in a transverse direction of its length.

(Page 144, plan 1.)—These slabs were of limestone grit, and of different widths, varying from 0m. 50 to 0m. 80, with a length of 2m. 60.

The last at the further end of the vault was varied 0m. 18 above the others, and formed a sort of bench.

In removing the small hewn stones which edged the four sides, I ascertained that they were 0m. 65 thick, and themselves rested on other blocks placed in a reverse direction.

It took more than a day to break up and remove this first row of slabs.

In arrangement, the second row was quite different to the first. It consisted of an immense rectangular slab, placed in the middle of the vault, measuring 3m. 62 by 1m. 80, with a border of six slabs ; these latter did not extend to the wall from which the plaster continued to fall (page 144, plan 2).

In removing the six blocks which served as a border, I was most astonished to find below a third layer, and to note that the middle piece reached still lower than this latter (page 144, plan 3).

The following day I had this third and last row of bordering removed, and the vault then contained nothing more than an immense rectangular monolith, with a length of 3m. 42, width of 1m. 70, and thickness of 1m. 60, cubing 9m. 30 (page 144, plan 4).

The monolith occupied the centre of the vault in its longitudinal direction.

It bore on the upper part of its thickness eight horse-shoe shaped grooves : three on each of its large sides, and one on the small one ; the grooves were 0m. 12 in width, and of an equal depth. They had served to hold the cables used for letting down this colossal lid, at first to the bottom of the shaft, and afterwards into the vault.

It was perfectly obvious, from the grain of the stone, that this large block, as well as all the slabs surrounding it, had been brought from elsewhere.

The lid now being clear on every side, we had two lifting-jacks brought, and, setting them in action simultaneously, managed to lift it

on one side from 0m. 10 to 0m. 15, and it was only then that I was able to perceive, by means of a jet of magnesium light, that this monolith concealed a magnificent black marble sarcophagus, anthropoid in shape, admirably preserved and covered with inscriptions. It was only the day after the 30th of May that I began to have this monolith sliced off horizontally, so as to reduce two-thirds of its thickness, in order to be able to lift it and turn it up against the wall of the vault, so as to allow of the passage of the fine sarcophagus. This operation ended, we could finally examine at our leisure this almost unique and in every respect remarkable object.

Eleven lines of hieroglyphic writing in longitudinal lines covered the base of the lid, starting from the large collar, which ended in a large winged globe, having on its left and right other hieroglyphic signs. A Phœnician inscription, carefully engraved, covered in its turn the horizontal portion of the legs.[1] This inscription occupied seven and a half lines. As in the sarcophagus of Eshmunazar, the collar is fastened to the shoulders by two hawks' heads.

Here are the respective measurements of the lid :—

Length from head to foot	2m. 30
Width of shoulders....	1m. 10
Width of feet	0m. 80
Thickness of feet	0m. 40
Length of hieroglyphic lines	0m. 70
Width „ „	0m. 10
Length of Phœnician inscription	0m. 57

A circle of hieroglyphic writing runs outside the circumference of the sarcophagus, and is of the same form as that of the sarcophagus of Eshmunazar.

The trench in which this precious object was deposited is admirably hewn, peculiar care having been devoted to this result.

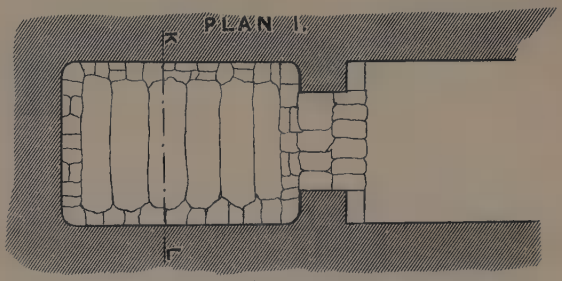
The edges and sides are remarkably clearly cut ; a parallelopiped 2m. 60 by 1m. 20 by 1m. 50 deep. They had not forgotten to take the centre of each of the small sides by marking it with a red arrow before placing the sarcophagi exactly on the longitudinal axis. On the shoulder side it nearly touched the walls ; and they had further filled in the small space that remained all round with small stones and a sort of mortar. All this rendered the opening and extraction of the sarcophagus very difficult. We, however, succeeded in doing this without any abrasion or mark resulting therefrom.

We first raised the lid, which we immediately placed in a temporary box until a passage should be prepared for it across the opposite vault and the violated tomb, No. 1 (p. 141), which the workmen were already clearing out.

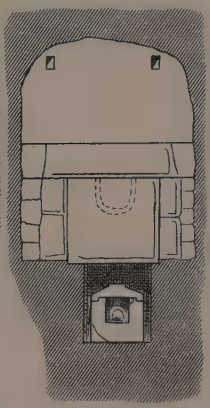
The sarcophagus contained the body of a man in fairly good preserva-

[1] This is the inscription whose translation was given in the last number of the *Quarterly Statement*.

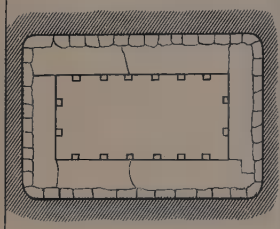
3. Plans and Section of the Sepulchre.



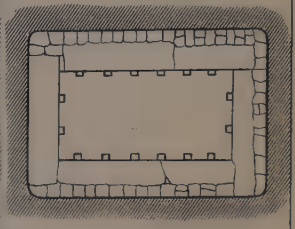
SECTION K.L.



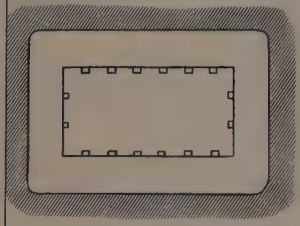
PLAN 2.



PLAN 3.



PLAN 4.



PLAN 5.

GREAT STONE COVER OF THE SARCOPHAGUS

Scale

10 5 0 10 20 feet

Vincent Brooks Day & Son lith.

tion. In the entire upper part, emerging from a yellowish mud which filled the bottom of the sarcophagus, the flesh had disappeared. The breast was staved in ; the sternum and the toes and fingers had disappeared. A fillet in very thin gold leaf, 0m. 20 long, was on the left clavicle. I had the body brought out, stretched upon a plank, and carried outside. Murad Effendi, the municipal doctor at Saida, charged himself with cleansing it, and putting it into a condition to allow of it being conveyed to Constantinople. All the muscles of the posterior parts are perfectly preserved, as well as the interior organs of the thorax and abdomen. The corpse was laid on a slightly concave plank, which occupied the bottom of the sarcophagus, and assumed its shape. This plank, in complete preservation, is of sycamore wood, and is 1m. 84 long, 0m. 32 wide, on the side of the head, and 0m. 21 on the side of the feet. It was furnished on every side with six silver rings, one of which still remains on the plank. They were fastened with nails, the points of which, after passing right through, were forced back by the blow of a hammer.

They fastened the corpse from head to foot firmly along this plank, upon which very distinct traces that the ropes have left are to be seen near the rings.

In another large anthropoid and perfectly preserved sarcophagus, which was given us to open, we likewise found the body extended on a plank of similar shape, but instead of rings they had been content to simply make holes with which to keep the body in place. I must mention that we found in a third sarcophagus, which was anthropoid and of white marble, the same kind of plank bearing bronze rings fixed in the same manner. In several other Phœnician tombs we collected from round the corpse, which was completely destroyed by the damp, numerous fragments of fillets. The Phœnicians, following in this the Egyptian fashion, endeavoured to mummify their dead, but they carried out this operation very badly.

In the tomb in question we did not find any trace of bandelets. It would appear, therefore, that the body was simply embalmed. I ought to add that in this sarcophagus we noticed the existence of a certain quantity of very fine sand, which we had likewise found in the three other anthropoid sarcophagi which had been given us to open previous to this.

Whilst we were occupying ourselves in extricating this fine royal sarcophagus from the deep trench in which it was found, several of our workmen had already cleared the vault from the south ; we were then able to immediately open the second tomb. It was exceedingly badly constructed, and altogether similar to the one that the violators of the other necropolis had ravaged. In this tomb—the body as well as the plank to which it was attached had entirely disappeared—we collected the following objects :—

1 fillet of gold leaf.
1 gold collar.
2 gold bracelets.

2 gold symbolic eyes.
13 gold beads.
1 bracelet ornamented with coloured stones, with a catseye in the centre.
1 onyx cylinder, one end of which has a golden cage.
13 cornelian beads.
1 symbolic eye in cornelian.
7 small beads in blue enamel.
2 large silver *halkals*.
1 silver pin, the tip of which bears the head of a serpent.
1 smaller silver pin.
1 broken silver box.
12 slender silver rings.
1 bronze mirror, joined by wrists.
Different ivory objects (broken).
7 bronze rings, belonging to the plank on which they had stretched and fastened the body.

The two tombs, No. 4 and No. 5 (p. 140), had neither slabs nor covers. The trenches were simply covered with earth and stones, nearly to the arch of the vault, and the entrance of this latter was walled. Except some fragments of bones which crumbled into dust directly they were touched, we found nothing. The southern vault, as well as the tombs which it contained, were of very defective workmanship. The piece of ground on which these tombs were discovered, is found in the plain below *Hilaleh*, between the aqueduct and the gardens. These latter, which border it, are called Bostan-el-Mazara (garden of the grottos). In fact, the entrance to two grottos running from west to east and uniting beneath our ground can be seen.

The ground is known by the name of Ayaa; this word is not Arabian. I was informed that the inhabitants of Meppo speak of a legendary Jewish queen who was called Ayaa.

Thus, a woman who gives herself airs in walking is said to walk like Ayaa.

I noticed here that in speaking Arabic they replace the letter caph by ain. Accordingly, instead of Kaleh, Kassir, Karib, they say Aaleh, Aassir, and Aarib. Assuming then the same corruption in the word Ayaa, we must seek to discover whether Kayaa has an Arabic signification. The ground plot of the necropolis is found 34 metres above the level of the sea, and is 1,250 metres distant from the same.

With the exception of tomb No. 1, which had been ravaged by the violators of the great necropolis, all the others had happily escaped the greed of the desecrators of the burial places. I must state, to my great regret, that these to-day are no less terrible than those of preceding ages. The same rapacity and vandalism continue their work of destruction, and, what is the more distressing, is that the so-called Europeans, representing certain great Powers at Saida, in their own interests and the most mer-

cenary spirit, head these devastations. We are assured that, not content with this clandestine speculation, they patronize a manufactory for articles of antiquity and false inscriptions, which is in a village in the outskirts of Saida. But in the interests of science, and so that archæological explorers should no longer be liable to be duped by them, I did not fail to take the most severe administrative measures in order that this deplorable state of things might be stopped. Finally, I must add that, in spite of Saida and other surrounding country having been ransacked, there still remain treasures to be discovered.

Beirût, June 29th, 1887.

A PERSONAL EXPLANATION.

I.

In the October number of the *Quarterly Statement*, p. 197, appears the following:—"Among other points he [Mr. Schick] shows that Dr. Merrill was misled when he stated that a rock scarp existed there."

This positive assertion of the Editor does me great injustice. In the first place I never stated that "a rock scarp existed there;" secondly, I have always maintained that *no rock scarp* existed there; thirdly, I can say, without boasting, that at the time I took more interest in this second-wall matter than any other European or foreigner. I was there every day, and frequently three or four times a day. I reported only what I saw and measured.

About 25 feet west from the line of the second wall there was a scarped wall from 10 to 15 feet in height; its top was 4 feet out of line with a vertical line drawn from the base of the same wall. What this had to do with the second wall I do not know. I never said that it had, or that it had not, anything to do with it. I mentioned and described simply a fact and never expressed any theory about it. The stones were faced like those of some large fine building. They were smaller than those in the scarped wall at the base of the present Tower of David. It may have been the wall of a building that in some general ruin inclined in towards the city, the bottom remaining in its original position. Among the ruins East of the Jordan I have seen walls perfectly intact but inclined as I have described this underground wall in Jerusalem to have been. Whatever may be the explanation of the existence of this wall at this point, I should describe it as "a scarped wall." Curiously enough, between this wall and the second wall there were no ruins, stones, &c., at least nothing that could be described as ruins, only *débris* of earth.

II.

At the bottom of p. 219, Mr. Schick says:—"Dr. Merrill has, it appears, written what he was told by the masons;" and on p. 220, "the

chief mason . . . . told Dr. Merrill so, telling him what he wished to know."

If what is implied in the second of these two quotations were true, I should be unworthy to be reckoned among Palestine explorers. To do as therein implied would be to act in direct opposition to the rule that I have always conscientiously followed.

But as to the fact—I never had any conversation with any of the masons. The person whom Mr. Schick calls the "architect" (p. 220) I call, or have called, the "engineer;" with him I conversed. We never mentioned "scarp"—scarped rock or scarped wall. He made a plan of the building for me, on which is located the line of the second wall as he found it. This does not correspond with the line of the wall as it appears on Mr. Schick's plan (p. 217). The society to whom I gave a copy of that plan ought, for the sake of the truth, to publish it.

On Mr. Schick's plan there is an elbow in the eastern wall of the new building just opposite the street which runs in an easterly direction, and he makes the line of the second wall to run east and entirely free of that elbow. On the contrary, I am certain that the wall ran on the inside, that is, the western side of that elbow. It is so on the engineer's plan. Furthermore, the second wall actually appeared on the street leading north-west from that elbow, and at a point some yards distant from it. On Mr. Schick's plan it stops short of that elbow. Again, when workmen were excavating the street in front of Frutiger's bank for the purpose of laying a pavement, they were suddenly stopped, because they found that they had run into a large cistern, which belonged to that house occupied by the Sisters of Joseph. They were compelled, after a protest had been made, to fill up the street again. Considering how narrow that street is, and how wide the foundations of the second wall are, the wall, running where Mr. Schick places it, would interfere with the cistern; in other words, the second wall and the cistern cannot both occupy that space. Mr. Schick has made the north end of the wall run too far east, and, moreover, he has not shown so much length of wall as actually appeared, proved by my own measurements. These facts I am confident of. I am showing no discourtesy to Mr. Schick when I state what he himself freely admits, namely, that he has a theory to maintain, which is that the Holy Sepulchre is the true site of Calvary, and in order to save this theory the second wall must bend eastward from the elbow referred to. Personally I have no theory to maintain, and all that I am insisting on at present is that the remains of the second wall should be located where I actually saw them, and that as much length of it should be represented as actually appeared.

SELAH MERRILL.

Andover, Mass., U.S.A.

EDITOR'S NOTE.—The plan referred to has been sent back to Dr. Merrill, and if he still desires it shall be published in the April *Quarterly Statement.*

THE BYZANTINE PAVEMENT NEAR THE CHURCH OF THE HOLY SEPULCHRE.

JERUSALEM, *October*, 1887.

I. IN the year 1860, amongst the many Christians killed at Damascus and the Lebanon, there were a number of Roman Catholics and their churches, convents, and houses destroyed by the fanatical Moslems. France, the Western Power protecting the Christians, especially those of the Roman Catholic creed, demanded compensation. It was proposed by the Ottoman Port to give in exchange the so-called "Khankeh" at Jerusalem to the Catholics, for those destroyed at Damascus by the Moslems.

An order, therefore, came to Jerusalem, that the Governor should not only report at full length on the matter, but should also send exact drawings, or a model of the subject, and it came to pass, that I had to make this requested Model of the Khankeh, and its connection with the Church of the Holy Sepulchre. It was done in wood, and on the scale of $\frac{1}{100}$, and when finished, a document had to be drawn up signed by all the Patriarchs interested in the question, to state that the model was an exact one. In different colours the different proprietorships of all the parts were marked. The model, by the high assembly summoned before the Governor, was found correct, but, as only one side of the Church of the Holy Sepulchre was represented by it, that in which the Roman Catholics have their share, the Greek Patriarch found that the model was too much in favour of this party, and demanded that the other side, belonging to the Greeks, should also be shown. In consequence, a new and larger model was made, comprehending the whole church, and all connections round about it, with the streets. It was a long and difficult work, lasting for many months, but came out to the satisfaction of all. In the course of this work, I had to examine and measure every thing and in detail, and so I found that south-east of the Church there was an ancient "sook" or market, walled up and no more in use, except four larger rooms (vaults) used by Moslems as a turnery—ending (at the west) by a flight of steps leading up to their roofs and further on to the Greek Convent St. Abraham, to an upper story. A few years ago all this was broken down, and a new large building erected on the place.

East of this, there was a piece of ground, embraced by walls and filled up with earth of about 15 feet high, above the street. This was bought by the Russian Government in the year 1862. A larger piece north of it they had already bought in the year 1859, covered with a high hill of earth which became removed and found that there are ruins underneath, and left so for many years. But a visit of the Grand Duke Sergius had the effect that this place (the first one bought) was cleared and searched through very thoroughly, and as I had been requested to oversee the work and report

upon it I have done so. Report and drawings were then published in Russian, but afterwards also in the German language by the German Palestine Exploration Society ("Zeitschrift," 1885, page 245, and following).

The first mentioned piece of land, bought in 1862, was left at this time untouched, the reason for which I do not know. But during this year, 1887, it has been cleared, and ruins have been found, of which I sent a plan to the English Palestine Exploration Fund at the end of March.

Recently these ruins were demolished and cleared away, in order to erect a new building of some ecclesiastical sort. By this clearing a pavement was found of very large, flat, and about 1-foot thick stones, just as it was found in the more northern part, extending on the same level southwards as far as the ruins which were done away, forming one court, all in the same level, about 2,470 feet above the Mediterranean. It was also found that the ruins were in ancient times shops, and that their walls, without any foundations, simply built on the mentioned pavement. So the pavement is not only much older than these shops were, but proves to have been here once a larger free and open place—a "forum," as I have it stated in my report to St. Petersburg, 1883; but I was at that time not aware that it extended so far south.

On looking at the last removed ruins, and the plans of them, comparing the latter with the plan of the shut-up market I mentioned above, and putting both together on an equal scale I found there had been two market-streets, and I thought it to be my duty to preserve the knowledge of them: I therefore send a copy to the Palestine Exploration Fund, and have to remark that what is dark shaded no more exists (on the larger western part a new building of three stories high stands, and on the eastern a smaller one; also a new building will be erected as already stated, according to the painted line in red ink).

As the ruins were not yet cleared, but full of earth, when the Greeks made their new building some parts of it came to stand over the property of the Russians below; and then, when the ruins were removed, the two upper stories of the Greek building at this place were in danger of tumbling down, so they propped it up with very large beams, and the Russians have left the arch on which the whole corner rests until the new masonry shall have been made up, and then no danger of falling will exist.

II. According to the "Assise de Jerusalem," by Count Beugnot (II., p. 531 ffy.), there were in the thirteenth century several Market-streets in Jerusalem, viz., the "three streets" crossing the David's-street, and the one of Herbs going southward to the street of Mount Zion and the gate of Zion; another one to the arch of Judas. But besides these three, it is said that, when one is coming towards them from the north, one comes to the arched market (la Rue Couverte) on the right hand, going to the Monastery (not the Church) of the Holy Sepulchre. In this street the Syrians sold cloth.

Connected with this was the "Rue Mal-quis-mal" where meat was cooked and sold to the pilgrims. In the free place were sold fishes, and in a street south of it palm branches.

So I understand the description, and am convinced that in the longer and wider "arched street" with shops on both sides, is the Syrian cloth-market, leading to the Greek Convent of St. Abraham—and that the other, shorter and narrower one, also with shops on both sides, the "Mal-quis-mal" where meat, &c., was cooked for the pilgrims—as shown in plan, and now entirely removed (see I).

In case I am wrong in the interpretation, one more learned may correct me, and say what names these two market-streets had, and what was sold there. To me, it is enough to have pointed them out.

The masonry of the shops of these two streets was built in a very thin, light and easy manner, which proves it was not Crusading work, differing widely from such, and as these shops must have been built after the destruction of Jerusalem by the Romans I think it must be Byzantine work.

At the eastern end, there are six Crusading piers, erected at a later time as I could easily observe, the four northern, a, b, c, d, intended to bear a vault, and over it an upper room, e and f simply to bear one arch, very likely for a stair by which one might go up in the upper room, and to the roofs of the shops, and the northern street. The southern street (in which I entered the words "Mal-quis-mal") was never covered, but its southern boundary wall was strengthened by putting a second wall before the existing thin one, as shown in plan; and so it seems it was done on the east side: the piecing is of another time and description.[1] It seems also that between the piers, a and d, the roadway was upon, and in a later time (the Moslem) shut up.

Under the southern street a conduit for unclean water, or sewer, was found about two feet wide and 6 feet high, put in earth, having masonry on both sides, and covered with flat stones.

I have also to remark, that in later times the northern covered street was shut up in two places, first, towards the east (at the boundary between the Greeks and Russians) a wall with a door and windows to right and left was put in, and very likely made at the time into a room, shut up with a wall towards west. This, however, was, at some later time, altered again—door and windows were blocked up, and the room converted for three narrow shops—as I found them in 1862.

The second blocking up was more west, at the well-mouth, and made for two shops, as I found them, 1862. Behind it and the rooms of the turnery was, at that time, a kind of cellar or magazine belonging to the Convent St. Abraham. As there the roof had some opening so light and air could come in—now it is entirely altered.

The well mentioned is a very large one, forming at the ancient Jerusalem a kind of ditch, into which it was converted, later on, very

[1] Perhaps the remains of a connection with the three market streets.

likely in Hadrian's, or more probably in Constantine's, time, when the Church of the Holy Sepulchre was built.

Now the well is full of silt, as it seems, for centuries never cleansed, and always dirty water from the streets, and even worse places, is running in. On my asking the proprietor of it—the Greek Archimandrite or Captain of the Church of Holy Sepulchre — why it could not be cleaned, he said : "It would cost too much—a very high sum—we must wait for a later time."

The new building opposite—in south—is going on, of which I will report in due time

As far as I know, there exists no other plan of the ancient and now removed market except the one I send you to-day made by me.

C. S.

JERUSALEM.

October 26th, 1887.

1. In the adjoining, I send you a plan of an ancient market at Jerusalem, during my stay in Jerusalem—broken away—which, I think, may have some interest in studying the town in the Christian area. In the accompanying Notes I have tried to give explanations, and what else I found necessary to remark. When on both sides the new houses are done—if I am still alive—then I will send you a general plan of the entire neighbourhood ; to-day I could do it only very imperfectly.

2. I am glad to be in a situation to report that I have got permission to dig in the ground of the Dominicans, near Jeremiah's Grotto, and to follow up the aqueduct. But am sorry to say the work goes rather slowly, and is more expensive than I suggested, as I find the aqueduct was filled up on purpose by the Crusaders, who used large stones for it instead of earth, and have removed the flagging stones on the top, so there is no empty parts, but all full, and often there are found larger stones, which must be broken in pieces. We traced it for about 45 feet ; it does not go in a straight line, but has sharp angles. It is 2 feet 9 inches wide and 16 feet deep, entirely cut through the rock. But what I am suspicious about is the level of its bottom, according to my levelling, about 25 feet higher than the one ending on the town wall. However, I will go further on with the clearing, as, even if it is not the Bîreh Aqueduct as expected, something else of interest may be found. I will use up the money I have in hand, and then send you an account of the expenditure, stating everything in detail.

3. *The Wâdy Yasûl Tomb.*—In my last I have written to you to try to get leave from the Pasha for a proper digging. The owner of the place wished expressly not to do this, and he himself went on to break through the rock from another side, following a cleft in the rock, but it proved that there is no real room or an artificial chamber, but simply a cavity by nature, allowing me, by proper lighting, to ascertain in a fuller

degree the exactness, the size, and form, &c., of the suspected sarcophagus; it proved not to be one at all, but simply a play of nature, the one visible side of which is like a sarcophagus covered with a sloping lid; the other side has nothing of the kind, and forms, with the rest of the rock, one piece, so I find further expense useless. The natives, and the proprietor of the ground, disbelieve this, my statement, and intend to break further in to come nearer to it, which I am sure is useless, and am rather sorry that I have troubled myself and you so much about it, but it is, as when a hunter by going about become weary, and bringing no prey home. The explorer becomes very often disappointed, and is, therefore, the more glad when he finds something.

4. During my long life, and especially since I have been in Jerusalem (1846), I have made not only studies on the topography of this remarkable city, but also on the Temple. In doing so I found that many difficulties cannot be overcome, or the questions answered, as long as one deals only with words and plans; but when a model is made of the state of things the solution is very often easy, and near at hand. So I began to make a model of the Temple, and the mountain on which it stood; but having began, I found it wants such arrangements to show and illustrate the whole history of this remarkable site. After many years' labour, I have so far ended the work that I could show it to travellers, and many of them have seen it, and all have told me that I should write and print the explanation to it, and every one would like to get such one. The writing I have done, and as I know the German language better than the English, I have done it in the same, but found no one undertaking the printing, but became advised to print, on my own account first, the last part—a description of the Haram, or the place of the Temple as it now is.

It was consequently printed here in Jerusalem, and also the pictures made, and the binding; it is now finished, so I take the liberty to send by this post also a copy to your Society, or the Library of the Society, and beg humbly for a favoured acceptance. Some people say it should be translated into English, but I doubt the value of the book for so doing; it will interest only a few people. Very likely the value of it will be recognised after my death, and perhaps my children may then sell the model. I am now about to study the wall of Nehemiah, chap. iii, and to write an architectural history of Jerusalem, of its walls and mode of building, during the many centuries from the beginning in Abraham's time, down till to-day; maps or plans will illustrate it. But I see I have to work a long time—I am now at the time of David and Solomon.

5. The restraints the Turkish Government makes against the Jews coming to Palestine are becoming gradually severe. When coming, they are allowed only to stay one month, and then have to return; when not returning themselves they are sent back by the police, and such desiring to become Turkish subjects could formerly do so without much difficulty, now a very high tax has been imposed.

6. The idea of making a railway to Jaffa has risen up again, and, as it

seems, with more hope; it will be an undertaking by subjects of the Turkish Empire.

The plan I have seen; it was simply a copy of the large map of the English Palestine Exploration Fund, the trace of the line put in, and all names in Turkish characters, and stated the number of souls in all the town and villages for about 12 miles on both sides of the line. It will go down the Waly Rephaim, Bettis, Iswain, Sarar, &c., with a station at Arlouf, on the foot of the mountain, then goes down to Ramleh, Lydda, and Jaffa, reaching the sea north of the town. The road will have only one line, and a very narrow one, so that curves may be made, and it is hoped to bring in more than the interest of the outlay, which some people doubt.

C. Schick.

STATUES AT ASKALON.

Jerusalem, *September 21st*, 1887.

In my last I told you of some statues discovered by the Governor at Askalon, and what I did in the matter. To-day I wish to tell you some more about and submit some drawings. From Jaffa I get the answer that they do not know anything about the statues, and no photographer there had photographed them. By chance I heard that it was a Jew—a youth in the Israelite Alliance School here—which I soon found out. He showed me his plates, but had no photographs, and to prepare such for me he has first to get permission so to do from the Pasha. I was afraid this might lead to a negative result, so the man allowed me to expose his glasses to the sun, put on my prepared paper, so I get the enclosed figures, to which I make the following remarks :—

Nos. 1 and 2 are taken from the smaller statue, if we may call them so, but they (both stones) are high relief on a flat stone of white marble. The photographs are not good, as the figures were lying in a pit about 10 feet deep and in a lying position. It was tried in vain to put them upright, or at least at such an angle that the instrument would fall in a right angle on them. It could not be effected as the man told me, although the Pasha had ordered the fellahîn to do so—as they had no instruments at all. So the view fell in a slanting angle on them, hence appearing too short. Nos. 1 and 2 are one and the same object, the camera only put on two opposite sides. No. 1 shows the whole figure, even to the forefoot (marked ⅄), but No. 2 from the opposite side, taken on a larger scale but not the whole figure. The man said it is in size that of a real human body. The face is greatly injured, and on the head is a curious cover. It has wings and two arms, of which one is entirely broken away, the other also injured. The slab is said to be about 6 feet long, about 2½ broad, and 6·9 inches thick, besides the figure, which projects about 1 foot, on some places even more. The young Jew said: "It looks like a woman

and the peasants there knew of it for a long time, but considering them as idols kept them buried."

The other one seems to be of much more interest, and is also much larger. As the camera was so very small—the plates only 5½ inches wide and 7 long—it could not be taken in one time, but had to be made in two pieces, Nos. 3 and 4. The stone is about 10 feet long, a little more than 2 feet broad, and about (without the figures) 10 inches thick ; on its bottom, where it forms a pedestal in two sets much thicker, as it will be seen on No. 3. On the pedestal no inscription was found. The kneeling figure Atlas cannot be in full human size—although the Jew told me so—but he said also, his eyes and whole face in an expression at his load (on the shoulder) to be very heavy—the mouth open so that he could put in his four fingers, the left arm injured. His load is a ball or globe, but behind not round but one with the slab on it stands an angel (or genius in full human size, arms and countenance greatly injured—all which is mentioned one and the same stone. So it seems these stones formed once a kind of pilaster in a temple, etc.

The Jew told me, when the figures are taken out he will go down again with a larger camera, and then he hopes to give better photographs. As the matter now stands nothing can be done, and it seems the Pasha is waiting for orders from Constantinople.

No. 5 was tried to take a view from a little of the side, and in one piece it helps only to a little better understanding of the other view (Nos. 3 and 4).

The site on which these figures were found and now lying underground is, according to the description of the young man, inside the ancient town of Askalon, about the middle. As I had no plan at hand when I conversed with him I could not fix the place, but will try to see the place in the Memoirs, and then speak again with the young man about the site—of which I will report in my next.

C. Schick.

PALESTINE ACCORDING TO THE ARAB GEOGRAPHERS AND TRAVELLERS.

During the course of the present year, it is hoped to bring out a work containing all the information to be found in the books of the Arab Geographers and Travellers who have written about Palestine and Syria. My original intention was to have limited the translations to Palestine proper, but the boundary line was not easy to fix. Palestine is but a province of Syria in the Muslim administration, and further remembering that the description left us by the Arab geographers of the various cities in the northern province of Syria is of great interest for the Crusading period, of which some of them were contemporaries, I have deemed it advisable to include in my work everything that had to do with Syria (As Shâm), in its widest sense, from Tarsus and Malatia on the north to

Rafh and the Tîh Desert on the south. The eastern and western limits are fixed naturally by the Mediterranean and the great sand-sea of the Arabian desert.

As is well known, the Muslims did not begin to write books till fully two centuries had elapsed after the Era of the Flight; and our earliest geographer (who is, by the way, of Persian nationality) composed his book in the year 250 A.H., or about the middle of the ninth century A.D. From this period, however, down to the end of the fifteenth century of our reckoning, the names of authors follow each other at very short intervals, and we have over a score of writers, all Muslim, and nearly all writing in Arabic, who have undertaken to describe for us the various provinces of Syria and Palestine.

The accompanying list will give an idea of the mass of material that is available. It must, however, be premised, that in every case we have not to do with the result of personal observation and original information. The Arab writers plagiarised each from his predecessor to a very remarkable degree. Each tried to make his work as complete as possible by incorporating therein all he could gather from previous reading, as well as from personal observation when he had himself visited the places described; and this constant plagiarism, though it decreases the amount of fresh information, is very valuable for purposes of comparison, and for rectifying mistakes of copyists and filling in lacunæ.

List of Geographers and Travellers.

		A.D.
1.	Ibn Khurdâdbih, wrote about....	864
2.	Belâdhurî.... .... „	869
3.	Kudamah.... .... „	880
4.	Ya'kûbi .... „	891
5.	Ibn al Fakîh .... „	903
6.	Ibn 'Abd Rabbih.... „	*circa* 913
7.	Mas'ûdi .... „	943
8.	Istakhrî .... „	951
9.	Ibn Haukal .... „	978
10.	Mukaddasi .... „	985
11.	Nâsiri Khusrau .... „	1052
12.	Idrisi .... „	1154
13.	'Ali of Herat .... „	1173
14.	Ibn Jubair .... „	1185
15.	Yakût .... „	1225
16.	Dimashki .... „	*circa* 1300
17.	Abu 'l Fidâ .... „	1321
18.	Ibn Batûtah .... „	1355
19.	The author of the "Muthir"	1351
20.	Shams ad Dîn Suyûtî „	1470
21.	Mujîr ad Dîn .... „	1496

It may perhaps be interesting to give a cursory note on each of the above mentioned writers, that our readers may have some idea of what manner of men they were, and of the nature of the work each performed.

1. Ibn Khurdâdbih the first name on the list, was, as before noted, a Persian by birth ; as in fact his father's name shows, for *Khurdâd-bih* signifies in old Persian "Good gift of the Sun," or as the Greeks would have said, "Heliodorus." Ibn Khurdâdbih was born about the commencement of the third century of the Hejrah (corresponding to the ninth of our era) and flourished at the court of the Abbaside Caliph Al Mu'tamid at Bagdad. Under his government Ibn Khurdâdbih held the office of Chief of the Post in the province of Jibâl, the ancient Media, and with a view, doubtless, of instructing his subordinates, compiled the Handbook of Routes and Countries which has come down to us as one of the earliest of Muslim geographical treatises.

2. The work of Belâdhurî is of an entirely different order, and only in a very secondary sense geographical. His is the earliest historical account we possess of the "Conquests" of the Muslims. He was born at Bagdâd, and receiving his education there during the days of the great Al Mamûn, lived to enjoy the favour of the Caliphs Al Mutawakkil and Al Musta'in. He wrote his great "Book of the Conquest" about the year 869 A.D., and died in 892. His work is unfortunately almost barren of geographical description, the names of the places only being given and nothing more ; all detail is confined to the ordering of the battles and the accounts of those who took part in the action.

3. Kudâmah, who wrote a small book on the Revenues of the Muslim Empire about the year 880 A.D., was of Christian origin, but like most of his compeers found it to his advantage to embrace Islam. He occupied the post of accountant in the Revenue Department at Bagdad, and we know nothing further of him but that he died in 948. His work on the revenue contains some interesting geographical notes.

4. Ya'kûbi (also called Ibn Wâdhih) was both historian and geographer. In his history, which was written as early as the year 871 A.D., he clearly states that the Dome of the Rock was the work of the Caliph 'Abd al Mâlik, and gives the reason that prompted him to construct it.[1] His geography was written some twenty years later than his first work, or about the year 891. It unfortunately has not reached us in a perfect state, but the section relating to Syria is in tolerably good preservation. The work is curious, for it gives notes on the settlements made by the various Arab tribes who had migrated into Syria, otherwise it is little more than a bare list of provinces with their chief cities, and only interesting for the information of what were great towns in those days.

Of Y'akûbi's biography but little is known. It would appear that he was born in Egypt, passed the earlier part of his life in Khurasân and

[1] A translation of this passage and of some others giving early notices of Jerusalem will be found in my paper in the *Quarterly Statement* for April, 1887.

the further east, and came back to spend his latter years on the banks of the Nile in the land of his birth.

5. Ibn al Fakîh, the author of a very curious geographical miscellany, was a native of Hamadân, in western Persia, and flourished during the Caliphate of Al Mo'tadhid at Bagdad. He wrote his work about the year 903 A.D., but unfortunately we only possess it in the form of a somewhat arbitrary abridgment made by a certain 'Ali Shaizari, of whom little more is known than his name. Ibn al Fakîh gives us a careful description of the Haram Area at Jerusalem, and is also, so far as I know, the first Arab author who notices the great stones at Baalbek, of which he notes the measurements.

6. The next name on the list is that of a Spanish Arab, Ibn 'Abd Rabbih, born at Cordova in 860, and died in the same city in 940. He composed an extremely interesting historical work, extending to three volumes in the Cairo printed edition, giving us details that are found nowhere else of the life and manners and customs of the pre-Islamic Arabs and others. The book is named "The Collar of Unique Pearls," and in it there is a chapter describing in great detail the appearance of the Haram Area at Jerusalem. Whether or not the author ever visited the Holy City I have been unable to discover; but if his description is not from his own observations he must at least have borrowed it from someone who was capable of making good use of his eyes.[1]

7. Mas'ûdi is the author of the most entertaining historical work to be found in the whole range of Muslim literature. His "Meadows of Gold" begin with the Creation, and tell us all the Arabs knew of universal history down to the year 943, when the work was written. Mas'ûdi was born in Bagdad towards the end of the eighth century of our era. In his youth he travelled widely, visiting Multân and India, and passing through Persia a second time on his way to India and Ceylon, whence he returned to Bagdad *viâ* Madagascar. He travelled through Palestine in 926, and spent some time at Antioch; then went and settled in Egypt about the year 955, where he died a year later, at Fostat, now called Old Cairo. Spread up and down his numerous volumes of historic lore are many geographical notes, which are of considerable value, especially when it is remembered the early period at which the author wrote, his powers of observation, and his great learning.

8, 9. The names of Istakhrî (wrote 951) and Ibn Haukal (wrote 978) must be taken together, for the latter, who is by far the better known of the two, only brought out an emended and somewhat enlarged edition of the work of the former, giving it his own name. We have here to deal with the first systematic geography of the Arabs. It is not a mere road book, such as was Ibn Kurdâdbih's, or a revenue list, as Kudamah's, but a sober description of each province in turn of the Muslim Empire, with its chief cities and notable places. Istakhrî, a native of Persepolis, as his name implies, wrote his book to explain the maps that had been drawn

[1] See the translation in *Quarterly Statement* for April, 1887.

up by a certain Balkhi, about the year 921, which maps are unfortunately not extant. Of Istakhrî and Ibn Haukal all that we know is that they were both by trade merchants, and that they travelled far and wide in the pursuit of commerce. All further biographical details are wanting.

10. Of Mukaddasi I need say little here, having already given details of his life and work in the preface to my translation of his account of Syria and Palestine, recently published by the Palestine Pilgrims' Text Society. He wrote in 985, and his description of the Holy Land and its cities is the more valuable from his being himself a native of Jerusalem, as indicated by his name, Al Mukaddasi, the Hierosolymite.

11. Rather more than half a century later than Mukaddasi, and about half a century before the first Crusade, the Persian traveller, Nâsir-i-Khusrau, passed through Palestine on his way to Mecca. He was in Jerusalem in 1052, and his description of the Holy City and the Haram Area is most minute, and extremely valuable, as being the last we have of the holy places before the coming of the Crusaders. Further details I need not give here, since before long I hope to bring out a translation from the Persian original of the Palestine section of his diary, to be included in the same series that has published Mukaddasi. The British Museum possesses a minute but very beautiful MS. of his work, and by its aid I have been able, I think, to emend many of the obscure passages in the edition of the French *savant*, M. C. Schefer.

12. The geographer, Idrisi, is perhaps better known in the west than any other Arab writer on this subject. As long ago as 1592 the text was printed in Rome. His geography was written in 1154, at the request of the Norman king, Roger II, of Sicily, at whose court he resided. Idrisi was born at Ceuta, but of Spanish Arab parents. He travelled much, for he relates that he has seen the English and French coasts, and has lived at Lisbon. His description of Palestine is excellent, and that of Jerusalem in particular is interesting, for he wrote of it as it was during the occupation of the Crusaders. It would not, however, appear that he himself visited the Holy Land, and his information, therefore, must have been derived from the accounts that he obtained at the Court of Roger from books, and from those who had travelled in that country.

13. Another Muslim who has left us a description of sites in Palestine during Crusading times is 'Ali of Herat, who wrote in 1173 a small work on "The Places of Pilgrimage." Its most interesting section is that describing Hebron, wherein he gives an account of a visit to the Cave of Machpelah.[1] 'Ali of Herat, though of Persian origin, wrote in Arabic. The text of his work has not, as far as I know, ever been printed; but the Bodleian possesses a good MS. copy. 'Ali died at Aleppo in 1215.

14. In 1185, two years before Saladin reconquered Jerusalem, the northern part of Palestine was visited by the traveller Ibn Jubair, a Spanish Arab, born at Valencia in 1145. Ibn Jubair set out out on his

[1] I have given a translation of Yakût's version of the story in my paper on Suyûtî.—J.R.A.S., vol. xix, 1887, April.

travels from Granada in 1183; he came first to Egypt, went up the Nile, and then across the desert to Aidhab, on the Red Sea, whence he reached Mecca, and subsequently Medina. Thence he crossed Arabia to Kufah and Bagdad (of which he has left a most interesting account), and travelling up the Tigris bank, crossed from Mosul to Aleppo, travelled down to Damascus (of which he has also given a detailed description), and thence on to Acre, where he took ship, and ultimately landed again on Spanish soil at Carthagena in 1185. Unfortunately for us he did not visit Jerusalem. He made two other journeys to the East subsequent to the one above mentioned, and on the return journey died at Alexandria, in Egypt. His description of the places he saw is lively and exact, although from the ornate style in which he wrote a literal translation of his diary would be tiresome reading.

15. For the immense extent of his labours and the great bulk of his writings Yakût has certainly the first rank among Muslim geographers. By birth a Greek and a slave, he was brought up and received a scientific education at Bagdad, in his master's house, who was a merchant. The details of his biography would take too long to recount here; suffice it to say that at various periods of his wandering life he sojourned at Aleppo, Mosul, Arbela, and Marv, and that he fled from this latter city (in those days renowned for its numerous libraries) in 1220 on the advent of the armies of Jenghis Khân. Travelling across Persia and through Mesopotamia, he ultimately reached Syria, and settled down at Aleppo, in which city he died in 1229. His great geographical lexicon, which describes in alphabetical order every town and place of which Yakût could obtain any information throughout the many kingdoms of the Muslims, was completed in the year 1225. It is a storehouse of geographical information, the value of which it would be impossible to over-estimate, and since no translation has ever been attempted of the articles therein relating to Palestine and Syria I hope to bring to light much that is new by giving an English version of what the great geographer has to say about the cities and sites of the Holy Land.

After the days of Yakût there is indeed very little new to be learnt fram the Arab geographers.

16. Dimashki, born in 1256 at Damascus (as his name implies), wrote about the year 1300 a very jejune description of his native land. He was a contemporary of Sultan Bibârs, and his work is of some value in connection with the Crusading Chronicles. He died at Safed in 1327.

17. His contemporary, Abu 'l Fidâ, some time Prince of Hamâh, and a collateral descendant of the great Saladin, is a geographer of far higher merit. His chapter on Syria and Palestine is for the most part not copied from books, for as he is describing his native country he writes from personal observation. The work was completed in 1321. Abu 'l Fidâ himself was born at Damascus in 1273. He lived under the Mamlûk Sultans Kalaun, Lajûn, and Malik en Nâsir, and was made Governor of Hamâh in 1310, in which city he died in 1331.

18. Ibn Batûtah, the Berber, may well take rank with the Venetian,

Marco Polo, for the marvellous extent of his journeyings. He was born at Tangiers about the year 1300, and at the age of twenty-five set out on his travels.

Of these he has left us a full description, written in the year 1355. His route in the barest outline is all that can be indicated in this place. Starting from Morocco he visited in succession Tunis, Tripoli, and Egypt; going up through Palestine and Syria, he accompanied the Hajj to Medina and Mecca, went thence on through Mesopotamia to Persia, and returning, spent some months, first at Bagdad, and subsequently at Mosul. From Mosul he went again to Mecca, and from there travelled through Yemen, and so back to Egypt. From Egypt he took ship for Asia Minor, and afterwards visited Constantinople, the Crimea, Astrakhan, Khârizm, Tartary, Transoniana, Afghanistan, and finally reached India, where he spent a considerable time at Delhi. From India he sailed to the Maldive Islands and Ceylon, taking them on his way to China; and on the return journey visited Sumatra. After long voyaging he again found himself at Mecca, and from the Holy City took his way home to Fez *viâ* the Sudan and Timbuctoo. He subsequently visited Spain; and died at Fez, at an advanced age, in the year 1377.

Ibn Batûtah's account of what he saw in Palestine is extremely curious, and his description of Jerusalem goes into considerable detail. Possibly it might be worth while to translate his Palestine route *in extenso*, and give it in the form of one of the "Pilgrims."

19, 20, and 21. The last three names on the list are those of the Jerusalem Topographers. The earliest of them, the author of the much quoted "Muthîr al Ghirâm"—which only exists in MS.—wrote in the year 1351.

His work forms the foundation of the description of Jerusalem, written in 1470 by Shamis ad Dîn Suyûtî,[1] and lastly, Suyûtî *plus* the "Muthîr" has been incorporated by Mujîr ad Dîn, chief judge of the Holy City, in the detailed description he has given us of Jerusalem, written a quarter of a century later than Suyûtî, in the year 1496. From a topographical point of view these three taken together correct one another, and the last of them describes the sites of Jerusalem very much as they stand at the present day.

A few words must now be added in conclusion to indicate the method it is proposed to follow in the work I hope, before very long, to lay before the subscribers to the Palestine Exploration Fund. A first chapter therein will be devoted to a general account—as found in the various Arab geographers—of Palestine and Syria; giving the political divisions of the country at various epochs, its products and peculiarities, its commerce, and, in short, all details that are of a general order. Next in place, as being by far the most voluminous, I propose to give the article on Jerusalem. It will contain a careful translation, with the needful notes,

[1] See J. R. As. Soc., April, 1887, for a full account and translation of the more important parts of his work.

of all that the Arab geographers have reported of the Holy City and its buildings. The descriptions of such travellers as Nâsir-i-Khusrau and Ibn Batûtah, as found in their diaries, will be here translated *verbatim*.

Special attention will, of course, be paid to the due arrangement in chronological order of the descriptions that have come down to us, of the buildings of the Dome of the Rock, and Aksa Mosque, and the Church of the Holy Sepulchre, in order that the history of these buildings, *during the last thousand years*, may, by the testimony of contemporary writers, once and for all, be set at rest.

Following the chapter on Jerusalem will come one that will give the various accounts of Damascus. After these two, I propose to arrange under the place names in alphabetical order everything that I have been able to gather from the above enumerated authors, concerning each of the several towns and sites in Palestine and Syria. Some of the articles will naturally be confined to a few lines; others, such as those dealing with Hebron, Tiberias, the Dead Sea, the Sea of Galilee, &c., will contain a considerable amount of translation.

Lastly, I propose to add a classified "road book" of the distances between the various towns, as given by the geographers (citing the authority for each), since by this means we are often enabled to identify sites of places now gone to ruin, and further, we gain an idea of the extent of traffic along these high roads during all the centuries of the middle ages. A full index will, as a matter of course, be added, and as an introduction, a chronological table, for reference, of the various dynasties that have held sway in Palestine, from the first Arab conquest down to its last conquest by the Turkish Sultan, Selim I, in 1518.

Maps and plans of the various edifices described will also be inserted, as required, to elucidate the text.

Of the translations from the Arabic, I should say that in every case they will have been made by myself from the original texts, printed or MS. Among the score of authors enumerated above, some few have been already translated (in part or in whole) into Latin, French, or German. Of previous translations I shall of course make my use, and take profit at the same time by the notes the editor, or translator, may have added to his text. A full bibliographical list of the texts used will be given, and in this it will doubtless be a matter of surprise for some, to note that of these score of Arab geographers, only one has been edited (untranslated, in the Arabic text) by an Englishman, and only one has been translated into English, and that, unfortunately, after a fashion that renders it utterly unreliable for any purposes whatsoever.

GUY LE STRANGE.

IDRÎSÎ'S DESCRIPTION OF JERUSALEM IN 1154.

In connection with Professor Hayter-Lewis' excellent paper on the Aksa Mosque (see *Quarterly Statement* for January, 1887), the following translation of Idrîsî's description of Jerusalem in the year 1154 may be found of interest. Idrîsî wrote at a time when Jerusalem was still in the possession of the Crusaders.

My translation is made from the Arabic text printed by J. Gildemeister (Zeit. des Deutsh. Pal. Ver., Band 2, Heft 2, 1885), from a MS. copy lent to him by the Dutch Orientalist, de Goeje, which had been carefully collated with the MS. preserved in Paris and at Oxford.

Guy le Strange.

The Holy City.—Baït al Mukaddas, a beautiful city of ancient foundation, lasting for ever. It was anciently called Iliyâ (Ælia). It stands on a mountain, and you ascend to it from all sides. In plan it is long, and its length stretches from west to east.

Bâb al Mihrâb[1] is on its western side; and this is the gate over which is the Cupola of David, Kubbat Dâûd—peace be upon him.

Bâb ar Rahmah[2] is on the eastern side of the city. It is closed, and is only opened at the Feast of Olive-branches (Palm Sunday).

Bâb Sihyûn (Sion Gate) is on the south of the city.

Bâb 'Amûd al Ghurâb (the Gate of the Crow's Pillars)[3] lies to the north of the city.

When you enter (Jerusalem) by the (Jaffa Gate) Bâb al Mihrâb, which as aforesaid is the western gate, you go eastwards through a street that leads to the great church known as the Kanîsah al Kayâmah (the Church of the Resurrection), which the Muslims call Kumâmah (the Dunghill). This is a church to which pilgrimage is made from all parts of the Greek empire, both from the eastern lands and the western. You may enter (the Church) by a gate at the west end,[4] and the interior thereof occupies the centre space under a dome which covers the whole of the church. This is one of the wonders of the world.

The church itself lies lower than this gate, but you cannot descend thereto from this side.

Another gate opens on the north side,[5] and through this you may descend to the lower part of the church by thirty steps. This gate is called Bâb Santa Maria.

[1] The Gate of the Oratory (of David), *i.e.*, the Jaffa Gate.

[2] The Gate of Mercy. One half of the so called Golden Gate.

[3] The "Damascus Gate" is at the present day known as Bâb al 'Amûd, "the Gate of the Pillar," what the "Crow" was I know not.

[4] No longer, I believe, in existence.

[5] Also closed at the present day by external buildings occupying the part north of the "Aisle of the Church of the Crusaders."

When you have descended into the interior of the church you come on the most venerated Holy Sepulchre. It has two gates, and above it is a vaulted dome of very solid construction, beautifully built, and splendidly ornamented. Of these two gates, one is toward the north, facing the gate Santa Maria, and the other is toward the south, facing which is the Bâb as Salûbiyyah (the gate of the Crucifixion). Above this gate is the bell-tower[1] of the church.

Over against this,[2] on the east, is a great and venerable church, where the Franks of Ar Rûm (which is the Greek Empire) have their worship and services. To the east (again) of this blessed church, but bearing somewhat to the south, is the prison in which the Lord Messiah was incarcerated ; also the place of the Crucifixion.

Now as to the great dome (over the Church of the Resurrection), it is of a vast size, and open to the sky. Inside the dome, and all round it, are painted pictures of the Prophets, and of the Lord Messiah, and of the Lady Maryam, his mother, and of John the Baptist. Over the Holy Sepulchre lamps are suspended, and above the Place (of the Grave) in particular are three lamps of gold.

On leaving the great Church (of the Resurrection) and going eastwards, you come to the holy house built by Solomon, the son of David. This, in the time of the Jews, was a mosque (or house of prayer) to which pilgrimage was made, but it was taken out of their hands and they were driven from thence ; but when the days of Islam came, under the Kings of the Muslims, the spot came once more to be venerated, as the Masjid al Aksa.

The Masjid al Aksa is the great mosque (of Jerusalem), and in the whole earth there is no mosque of greater dimensions than this ; unless it be the Friday Mosque at Cordova, in Andalusia, which they say has a greater extent of roof than has the Aksa, but the court of the Aksa Mosque is certainly larger than is that of the mosque at Cordova.

(The Haram Area of) the Masjid al Aksa is four-sided, its length measures 200 fathoms (*bâ'*), and its breadth is 180 fathoms.

In that half (of the Haram Area) which lies (south) towards the Mihrâb (or prayer-nich) is (the main building of the Aksa Mosque), which

[1] Written in the Arabic *Kanbinâr*, Campanarium. This would go to prove the Tower of the Church of the Resurrection to be older than M. de Vogüe supposes (judging it on architectural grounds only), in his *Eglises de la Terre Sainte*, p. 207. The great south portal of the Church, the only one at present in use, and immediately to the north of which stands the Bell Tower, is the one, as I take it, here called the "Gate of the Crucifixion." It is noteworthy that in Idrîsî's days the Church had three entrances, the one just mentioned, to the south ; one opposite, opening north (Gate of Santa Maria), and the West Gate, from which you could *not* descend into the body of the edifice.

[2] The Arabic has "opposite to her," *i.e.*, the Church of the Resurrection as I understand it. The Church of the Greeks is, I imagine, the present Catholicon, lying immediately east of the Rotunda of the Sepulchre, and to the present day belonging to the Greek community.

is roofed with domes of stone set on many rows of columns. The other half (of the Haram Area) is an (open) court, and is not roofed over.

In the centre of the (court of the) mosque rises the mighty dome known as the Kubbat as Sakhrah (the Dome of the Rock).

This dome is overlaid with gold mosaic, and is of most beautiful workmanship, erected by the Muslim Khalifs. In its midst is the Rock (the Sakhrah), which is said to have fallen down (from heaven). It is a mass of stone of the height of a platform, and occupies the centre under the dome.

The extremity of one of its sides rises above the floor to half a man's height or more, while the other side lies even with the ground. The length of the rock is near to equal with its breadth, and is some ten ells (*dhirâ'*) and odd by the like. You may descend into the interior thereof, and go down into a dark chamber, like a cellar, the length of which is ten ells, by five in the width, and the ceiling is above a man's height up. No one can enter this chamber except with a lamp to light him.

The Dome (of the Rock) has four gates. The western gate has opposite to it an altar whereon the Children of Israel were wont to offer up their sacrifices.[1] Near the eastern gate of the dome is the church which is called the Holy of Holies ;[2] it is of an admirable construction.

(The gate) to the south faces the roofed-in portion (which is the main building of the Aksa), which same was in former times the place of prayer of the Muslims. Since (the Holy City) was conquered by the Greeks (*i.e.*, the Crusaders), and it hath remained in their hands even down to the time of the writing of this book (in the year 1154 A.D), they have converted this roofed-in portion (which is the main building of the Aksa) Mosque into chambers wherein are lodged those companies of men known as Ad Dâwiyyah (the Templars), whose name signifies "Servants of God's House." Opposite to the northern gate (of the Dome of the Rock) is a beautiful garden, planted with all sorts of trees, and round this garden is set a colonnade of marble, of most wondrous workmanship. In the further part of this garden is a place of assembly, where the priests and deacons are wont to take their repasts.

Leaving the mosque (and crossing the Haram Area) you come, on the eastern side, to the Bâb ar Rahmah (the Gate of Mercy), which is now closed, as we have said before ; but near to this gate is another, which is open. It is called Bâb al Asbât (the Gate of the Tribes), and through it there is much coming and going. When you have passed out by the Gate of the Tribes you reach the limits of the archery-ground, and find there a large church, and very beautiful, dedicated to the Lady Mary, and the place is known as Al Jismâniyyah (which is Gethsemane).

At this place also is her tomb, on the skirt of the Mount of Olives (Jabal az Zaitûn). Between it and the Gate of the Tribes is the space of about a mile.

[1] What this was I am unable to discover.

[2] This must be the present Dome of the Chain, *Kubbet as Silsileh.*

On the road ascending the Mount of Olives is a magnificent church, beautifully and solidly built, which is called the Church of Pater Noster; and on the summit of the mount is another church, beautiful and grand likewise, in which men and women incarcerate themselves, seeking thereby to obtain favour with Allah—be He exalted! In this aforementioned mount, on the eastern part, and bearing rather to the south, is the tomb of Al'Azar (Lazarus), whom the Lord Messiah raised again to life. Two miles distant from the Mount of Olives stands the village from which they brought the she ass on which the Lord Messiah rode on his entry into Jerusalem. The place is now in ruins, and no one lives there.

From the Tomb of Lazarus you take the road down to the Valley of the Jordan (*Wâdi al Urdunn*), and between the valley and the Holy City is the distance of a day's journey. Before reaching the River Jordan is the City of Jericho (Arîhâ), lying three miles distant from the bed of the river.

On the banks of the Jordan stands a magnificent church, called after Saint John (Sant Yûhannâ), where the Greek monks dwell.

The River Jordan flows out from the Lake of Tiberias (Buhairah Tabariyyah), and falls into the Lake of Sodom and Gomorah (Buhairah Sâdûm wa Ghâmûrâ), and these were two cities of the people of Lot which God overwhelmed because of the sins of their inhabitants. The land lying to the south of the River Jordan is one continuous desert.

Now as to what lies adjacent to the Holy City on the southern quarter:—When you go out by the Bâb Sihyûn (the Gate of Sion) you pass a distance of a stone's throw and come to the Church of Sion, which is a beautiful church, and fortified. In it is the guest-chamber wherein the Lord Messiah ate with the Disciples, and the table is there remaining even unto the present day. The people assemble here (for the Festival of Maundy) Thursday.

From the Gate of Sion you descend into a ravine called Wâdî Jahannum (the Valley of Gehenna). On the edge of this ravine is a church called after the name of Peter, and down in the ravine is the 'Ain Sulwân (Spring of Siloam), which is the spring where the Lord Messiah cured the infirmity of the blind man, who before that had no eyes. Going south from this said spring is the field (al Hakl, Aceldama?) wherein strangers are buried, and it is a piece of ground which the Lord bought for this purpose (!); and near by to it are many habitations cut out in the rock wherein men incarcerate themselves for the purposes of devotion.

Bethlehem (Bait Lahm) is the place where the Lord Messiah was born, and it lies six miles distant from Jerusalem. Half-way down the road is the tomb of Rachel (Râhîl), the mother of Joseph and of Benjamin, the two sons of Jacob—peace be upon them all. The tomb is covered by twelve stones, and above it is a dome vaulted over with stone. At Bethlehem is a church that is beautifully built, of solid foundations, spacious and finely ornamented even to the uttermost, so that not among all other churches can be seen its equal. It is situated in a low-lying ground. The gate thereof is towards the west, and there are (in the

church) marble columns of perfect beauty. In one angle of the choir (*al haikal*), towards the north, is a cave wherein the Lord Messiah was born. It lies below the church, and in the cave is the manger wherein the Messiah was found. As you go out from Bethlehem you see towards the east the church of the Angels who told the good news of the birth of the Lord Messiah to the shepherds.

THE PILGRIMAGE OF THE ABBOT DANIEL.[1]

RUSSIAN pilgrimages to the Holy Land date from the conversion of the Russians to Christianity towards the close of the tenth century. As early as 1022 A.D. allusion is made, in the life of St. Theodosis of Kiev, to the presence of Russian pilgrims in Palestine; but the first whose name is known is St. Varlaam, Abbot of the Laura of Kiev, who visited Jerusalem in 1062 A.D. The earliest extant record of a Russian pilgrimage to the Holy Land is that of Daniel, the Abbot, or Prior (Ἡγουμενος), of a Russian monastery, of whom nothing certain is known. It may be inferred from Daniel's reference to the river Snov, as a stream that possessed several of the characteristics of the Jordan, that he came from the province of Tchernigov, in Little Russia, through which the Snov runs; and he is supposed to have been the same Daniel who was Bishop of Suriev in 1115 A.D., and who died the 9th September, 1122 A.D.

Daniel was a contemporary of Nestor, the oldest of the Russian annalists, and his narrative is one of the most important Russian documents of the commencement of the twelfth century; its intrinsic merits seem to have made it extremely popular, and there are no less than 75 MSS., of which the earliest dates from 1475 A.D. The date of the pilgrimage can be fixed with considerable certainty from Daniel's own statements. He mentions the Russian Grand Duke Michel Sviatopolk Isiaslavowitsch (1093-1113), and Baldwin, King of Jerusalem (1100–1118); he also states that Acre belonged to the Franks, and as this city was taken by the Crusaders on the 26th May, 1104, the date must lie between 1104 and 1113. A closer approximation is, however, possible. Daniel tell us that he accompanied Baldwin on his expedition against Damascus, and M. H. Hagenmayer has shown ("Ekkehardi Urangiensis abbatis, Hierosolymita," Tub 1876, pp. 360–362) that this expedition must have been one of those undertaken by the king between 1106 and 1108. Again, Daniel speaks of the attacks to which pilgrims were exposed from the Saracens of Ascalon; and William of Tyre mentions one of these attacks on Christians passing from Jaffa to Jerusalem, which took place in the year 1107 ("Des choses avenues en la terre d'Outremer," xi, 4, Paris, 1879, vol. i, 384). Lastly, it will be observed that, in the very minute description which Daniel gives of the

[1] This tractate forms the latest issue of the Palestine Pilgrims Text Society.

ceremony of the "Holy Fire," no allusion is made to the Latin patriarch, and that one of the bishops takes the place that Fulcher de Chartres assigns to the patriarch. Now, we know that there was no Latin patriarch at Jerusalem during Easter, 1107, for Dagobert left the city in 1103, and Ebremar, his substitute, started for Rome towards the end of 1106. The Easter week which Daniel passed at Jerusalem must therefore have been that of 1107, and his pilgrimage was probably made during the years 1106–1107 A.D.

The wide field which Daniel's narrative covers—wider than that of any previous pilgrim—its fulness of detail, the light that it throws on the condition of the country a few years after its conquest by the Crusaders, and the evident good faith in which it is written, give it an importance and value that have not, hitherto, been sufficiently recognised. Daniel travelled extensively in Palestine west of Jordan; he visited most of the sanctuaries, holy places, and monasteries, and, having provided himself everywhere with the best guides, he wrote down a minute description of all he saw. According to his own account (p. 73) he described nothing that he did not see with his own eyes, and this is supported by the internal evidence of the narrative, for when he cannot visit a place, he frankly admits that he is dependent upon others for his information. Incidentally the Russian Abbot throws some curious light on the unsettled state of the country, and the dangers to which travellers were exposed, on the roads, in the earlier years of the Latin kingdom. At Lydda, on the high road from Joppa to Jerusalem, pilgrims pass the night in great fear of raiding Saracens from Ascalon; brigands frequent the road from Jerusalem to Jericho; on the forest-clad hills near Solomon's Pools, Saracen bands from Ascalon lie in wait for those journeying from Bethlehem to Hebron; the mountains south-east of Bethlelem are so full of brigands that Daniel and his companions have to travel under the protection of a Saracen chief. No one can proceed from Jerusalem to the Sea of Galilee without an armed escort; the Saracens of Beisan attack travellers as they ford the streams; impious Saracens massacre Christians going from Mount Tabor to Nazareth; and Lebanon cannot be visited on account of the infidels. We learn, too, that panthers and wild asses still found a home in the Wilderness of Judæa; and that lions in large numbers frequented the jungle in the Jordan Valley; whilst the date-palm, which has since disappeared, flourished in the semi-tropical climate of Jericho and Beisan.

Daniel's narrative derives additional interest from the fact that the writer was not only a member of the Russian (Greek) Church, but the abbot of a monastery, and, presumably, a man of some education and intelligence. It is written in a devout, believing spirit, such as might be expected in a Greek priest, and shows no trace of hostility towards the dominant Latin religion. Daniel was accompanied throughout his pilgrimage by a monk of the Greek Laura of St. Sabbas, "a very pious man of advanced age, who was well-versed in the Scriptures;" and he was a welcome guest at the numerous Greek monasteries throughout the country. His traditions are those of the Eastern Native Church, referred to by Sæwulf

and others as Assyrian or Syrian traditions ; he is evidently well acquainted with the Apocryphal Gospels in their Greek forms, and he quotes from the Protevangelium of James, whence several of the traditions are derived. The relations between the Greek and the Latin Churches in Palestine appear to have been most friendly at this period, and the deference paid by the King of Jerusalem to the Greek clergy and the monks of St. Sabbas is specially noteworthy. The Greeks have charge of the Church of the Holy Sepulchre, and keep the keys of the Sepulchre gate ; and during the Easter ceremonies the Greek lamps are placed on the tomb itself, whilst those of the Latins are suspended above it. The description of the descent of the Holy Light, or Fire, agrees in all essential particulars with that of Fulcher de Chartres (1101 A.D.), who was present on the memorable occasion when the Holy Fire did not kindle the lamps till Easter Sunday. Both writers describe the flame as being of a ruddy colour, and mention that all present joined in the Greek cry, "Kyrie Eleison." Daniel says that the Greeks and Latins read the service for Easter Saturday together; Fulcher, that the Franks first read each lesson in Latin, and that the Greeks then read the same lesson in Greek. In the Frank account of the ceremony the patriarch is said to have opened the door of the tomb ; in the Russian, one of the Latin bishops ; a difference explained by the absence of the Latin patriarch at the time of Daniel's visit.

Daniel is on the whole fairly accurate, but he occasionally falls into error, and some of his blunders betray an ignorance of Scripture not very creditable to himself or to his guide, the learned monk of St. Sabbas. Geographical errors, such as the location of Capernaum on the sea coast near Carmel, the identification of Lydda with Ramleh, of Cæsarea Philippi with Kaisaríyeh (Cæsarea Palæstina), of Samaria with Náblus ; and of Bashan with Beisán; and the statement that Decapolis was a town, may be set down to the general ignorance of the period. There are other blunders, however, for which far less excuse can be made, such, for instance, as the quaint account of the battle near Jericho, during which the sun stood still whilst Joshua conquered Og, King of Bashan ; the statement with regard to events said to have taken place at Beisán (p. 60), and the manner in which Mark i, 16–18, is mixed up with i, 19, 20 (p. 64). Little dependence can be placed on the distances and dimensions given in the text, the old Roman itineraries had fallen into disuse, and the former are only approximate, whilst the latter are in most cases erroneous either from corruption of the text or from having been hastily written down from imperfect information. In giving the direction of a place, Daniel usually refers to the position of the sun at the winter or summer solstice, which seems almost like a reminiscence of the remote days, when pointer stones were set up to mark the sun's furthest deviation north and south, and general rejoicing announced the day when the point of sunrise commenced to return northwards.

Daniel commences his itinerary at Constantinople whence he went by sea to Jaffa, visiting on the way Ephesus, Cyprus, and several other places. His voyage appears to have been uneventful ; he carefully par-

ticularises the localities where various saints and holy men were buried; mentions the "holy dust" that rises each year from St. John's tomb, and the cross suspended in mid-air above Mount Trodos in Cyprus, and describes the way in which storax is collected on the mountains of Lycia. From Jaffa he travelled by Lydda, which he found deserted; and Nebi Samwíl, identified with Armathem (Ramathaim Zophim), to Jerusalem. On the brow of Mount Scopus, in full view of the Holy City, he dismounted to pray, and then, full of exceeding joy, proceeded on foot past the church and tomb of St. Stephen to the present Jaffa Gate where, under the shadow of the citadel, all travellers entered Jerusalem during the rule of the Franks.

The Abbot took up his abode in the Metochia, or "Pilgrim House" of St. Abbas, near the Tower of David, which was then occupied by Greek monks who had escaped from a recent massacre at the better known Laura of St. Sabbas, now Mar Saba. Under the guidance of a monk of the Laura he visited the holy places, and his description of their condition before the Franks carried out any extensive building operations is of much interest. His narrative is fuller than that of Sæwulf, who visited Jerusalem four or five years before him, and he mentions several minor "holy places," such as the "Pit of Jeremiah," the "House of Uriah," and the compounds of Judas and Paul, which are not noticed by the Anglo-Saxon pilgrim. The description of the Church of the Resurrection, the Holy Sepulchre, and the group of holy places round it, is discussed in Appendix II; that of the Church of the Holy of Holies, now the "Dome of the Rock," is chiefly noteworthy for the statement that the building was the work of a Saracen chief named Amor, evidently a corruption of the name of Omar, the conqueror of Jerusalem. The legends gathered round the tomb of the Virgin in Cedron, and the church on Mount Sion, which was supposed to be the house of St. John the Evangelist, are detailed at some length, and they afford an interesting illustration of the class of information given by the Jerusalem guides of the early part of the twelfth century to pilgrims who belonged to the Eastern Church.

From Jerusalem Daniel made two excursions: the first to the Jordan and Dead Sea, during which he visited Jericho, and the Greek monasteries in the Jordan Valley, and the Wilderness of Judæa; the second to Bethlehem, Hebron, where the Crusaders had not yet built their church, and the monastery of St. Chariton. After returning to Jerusalem from Hebron he obtained permission from Baldwin to accompany the force which was about to march against Damascus under the leadership of the king himself. The route followed by the troops seems to have been by Bíreh, Lubbán Náblus, and Teísaír to Beisán, where some of the events connected with our Lord's life, including the healing of the two blind men, are localised. From Beisán the army marched to two bridges near the sources of the Jordan, which, according to Daniel, were two streams called Jor and Dan, that flowed from the Sea of Tiberias. The bridges appear to have been, that close to the point at which the Jordan now leaves the lake, of which traces can still be seen, and that known as the Jisr es Sidd, now in ruins, a

little below the junction of the two streams, "Jor and Dan," which then ran out of the lake and made an island of Kerak. The only other known site of a bridge is that of the Jisr Mujámiâ, a short distance lower down the river; but in that case we should have to suppose that the Jordan and the Yarmuk were the two streams mentioned. When Baldwin crossed the Jordan, Daniel went on to Tiberias, and spent ten days in visiting the holy places on the borders of the Sea of Galilee; he does not appear to have been able to leave the immediate vicinity of the lake, and was only able to see the environs of the Baheiret el Húleh, which he identifies with the Lake of Gennesareth, from a distance. According to the Russian Abbot the Jordan commences at its exit from the Sea of Tiberias, and he notices that portion of it above the lake merely as a large river flowing out of the Lake of Gennesareth. From Tiberias, Daniel went to Mount Tabor, where he heard the curious legends connected with the cave of Melchisedek; Nazareth, where the Latins had already firmly established themselves; Cana of Galilee, and Acre. After resting four days at the last place, he journeyed southwards by Haifa and Kaisaríyeh to Náblus; and so on by Bethel to Jerusalem.

After witnessing the ceremony of the descent of the "Holy Light," in the Church of the Resurrection, on Easter Saturday, 1107 A.D., the Russian pilgrim commenced his homeward journey. He travelled by the Convent of the Cross; 'Ain Kárim, the home of Zacharias, and the birth-place of John the Baptist; and 'Amwás, which has been laid waste by the infidels, to Jaffa; and thence by Arsúf, Kaisaríyeh, Haifa, Tyre, and Sidon, to Beirút. Whether he embarked at Beirút or at Suédiah, the port of Antioch, is uncertain; but in either case he followed the coast pretty closely, and after having been robbed by pirates, off the Lycian Coast, near Patara, eventually reached Constantinople in safety.

NOTES ON THE *QUARTERLY STATEMENT.*

THE Statement for October, 1887, shows that the work of the Palestine Exploration Fund is not falling off. Mr. Petrie's valuable casts have convinced Dr. Taylor (and I believe Dr. Sayce) of the existence of a Turanian element in Egypt, and of the Mongol origin of the Hittites. But these are not new ideas. As regards Egypt, we may refer to Rev. H. G. Tomkins's drawings in the "Life and Times of Abraham." As regards the Hittites, the late Dr. Birch, in 1882, pointed out from Rosellini's drawings the Mongolian character of the Hittites, and after seeing these beautiful designs I published my adherence to this view in 1883 in "Heth and Moab." The basis of my Hittite theory is thus accepted at length by many competent authorities.

The great Sidon find is illustrated by many known antiquarian facts. The horse led in procession (p. 202) recalls the horses in Etruscan tombs.

Horses were sacrificed at tombs in many parts of Europe and Asia, the horse sacrifice in India being reckoned of primary value next to that of human beings. The griffins and sphinxes are common to Akkadians, Babylonians, Egyptians, Phœnicians, Greeks, and Etruscans. Dogs seem to have had special importance, among the Phœnicians as among the Zoroastrians, but dogs' skulls have been found in Etruscan tombs. The fawn for which the centaurs contend might be connected with the fawns torn in pieces in honour of Dionysius. The water libations recall the common custom of pouring out water at funerals, or upsetting it on the occurrence of a death (compare the idea mentioned by Shakespeare of death depending on the tide). Perhaps the rite was symbolic of the ebbing life. The colouring of the sculptures indicates perhaps an early date, though painted tombs occur in Byzantine times. There are many painted figures in Phœnicia, and the early statues found recently at Athens were painted. So were early Greek temples, while the painted tombs of Egypt and of Etruria hardly need to be recalled. It seems to me that the chambers *above* the chief interment are not likely to be later than the lower tomb, but the sarcophagi may of course have been placed there afterwards. Anyhow, the cemetery is as early as the Persian period. The fish-scale ornament of the lids has been noticed in several cases in Palestine and beyond Jordan. The find agrees with what is already known of the progress of Phœnician art. It is interesting to hear that the same ship bore to the Constantinople Museum a new Hittite text. Hamdi Bey, whom I have the pleasure of knowing, is the best curator the Museum has yet possessed, and the Turks will take care of the antiquities, the value of which they fully understand.

As regards the "boat-shaped graves" (p. 236), I think they should be compared with the anthropoid sarcophagi of Phœnicia, and with the wooden mummy cases in Egypt. The form follows that of the human body. The representation of the recumbent figure on the lid of sarcophagi developed, in Etruria, into a complete statue like those of mediæval monuments, save for the costume.

Lydda and Anti-Christ.—The legend of St. George at this place was fully treated some time back by M. Clermont Ganneau, but I quite believe it is founded on the old story common to Akkadians, Babylonians, Aryans, &c.

Page 238. Is it not rather an extreme view to say that the Greeks "borrowed their religious system from Egypt?" It is known that there is a greater Aryan element perhaps coming from the north, as Canon Taylor has pointed out at the last meeting of the British Association. There is also an element of Babylonian or Akkadian derivation, and a Phœnician element in the mixed mythology of Greece. Charon was probably not connected with Horus, but with the Etruscan Charun, "the black (or evil) god" of death.

Page 240. The name Baal Zephon can hardly be quoted as evidence, seeing that as early at least as 1600 B.C. there was a large Semitic element in the Delta. The Egyptian dictionary is full of Semitic words, as old as

the time of the Hyksos at least. The Phœnician influence in Egypt, before the Exodus, is an established fact generally allowed.

City of David.—I mean no disrespect to those who hold another view, and especially none to H. B. S. W. (by whose corrections I have often profited), when I say that the papers to which he refers seem to me to be inconclusive. I do not see any contradictions in the sentences of mine which he quotes. Perhaps they are obscure. I do not think Jerusalem was as large in David's time as in Hezekiah's, or as large in Hezekiah's as it afterwards became ; but I think David's Jerusalem was larger than a fourth-rate Fellah village of our own times. I have expressed no opinions as to the dates of books of the Old Testament, but no scholar supposes the Book of Chronicles to be as old as the Book of Kings.

It is quite possible, of course, that I may be wrong as to the application of the term "City of David," but this remains a matter of opinion in the present condition of exploration in Jerusalem ; and I have of late been very fully occupied with matters from which I think results of greater value may spring than would result, even if we all agreed how to understand this much debated term ; Elizabeth, Bessy, and Bess (p. 252) are forms or corruptions of one word, but Zion, Ophel, Millo, and Akra do not appear to be forms of one word. Solomon's palace on Ophel was not in the City of David.

C. R. C.

THE MARASH LION.

In the Proceedings of the Society of Biblical Archæology, Mr. Rylands has just given some excellent copies of the Hittite inscription on this lion from the cast in the British Museum. I differ in a few cases from his copy of certain forms, but anyone who has seen the cast will know how difficult it is to make sure of some of the forms on this very crowded text, and the copy, as a whole, is very reliable.

Mr. Rylands seems to regard the text on the left side as the only Hittite text in which the first line begins from the left, but the same is the case in the fourth Hamath stone, which there is every reason to regard as complete, and also probably in one of the texts at Ibreez.

Mr. Rylands does not attempt any decipherment, but it is encouraging to see, in his general remarks, the influence of the publication of "Altaic Hieroglyphs." He says the lion stood at a corner, and compares it with the great Assyrian lion standing close by. He also speaks of "compound emblems" as occurring in the text. These remarks will not, I believe, be found in any other work before my book was published. Mr. Rylands does not allude to the curious "included emblem," which is unique.[1]

[1] These "included emblems" occur not only in cuneiform, but also in a good many cases in Egyptian ; but in Hittite they seem very rare—another indication of the early character of the Hittite script.

His drawing of a demon head I have verified from the cast and find very correct. Speaking of the emblem accompanying the oft-repeated *altar*, he confuses, I think, two distinct Hittite signs, viz., C, which is usually a suffix, and I C, which is always a prefix. It is the first which is found so often attached to the altar, and which compound I read *Bar-d*, but the altar occurs without this suffix C = *d* (or *ak*), and when alone probably reads *Bar*.

C. R. Conder

REPLY TO CAPTAIN CONDER'S NOTES ON ZION.

If silence gives consent, the opponents of Ophel being the site of the City of David are convinced of their error, and it only remains for me briefly to notice Captain Conder's objections in *Quarterly Statement*, 1887, p. 105.

1. He asks, "Is it certain that the words City of David are always used with the same meaning" in the Bible. I answer, without hesitation, Yes, as no evidence placing it elsewhere than on Ophel has yet withstood investigation.

2. He takes "the field of burial of the Kings," "the Garden of Uzzah, near Solomon's Palace on Ophel," to be a different place from "the Tombs of the Kings of Israel," *i.e.*, of David and other kings. Here are several mistakes.

a. The "field" and the "garden" were distinct places. For Manasseh was buried "in his house," or "in the garden of his house, in the garden of Uzzah." This house or palace was that built by Solomon near the Temple (within the "enclosure of Herod's Temple," "Handbook," 340), but "the Sepulchres of David," which Captain Conder (106) takes to be equivalent to this "field of burial," were not only, as he admits, on Ophel, but also between the Pool of Siloam and the pool that was made (Neh. iii, 15, 16), and so certainly not north of the Virgin's Pool. In other words, Manasseh's tomb was at the north end of Ophel, so called, and Uzziah's towards the southern side, so that the two localities were quite distinct.

b. Captain Conder admits that the field of burial where Uzziah was buried was on Ophel, but 2 Kings xv, 7, states that he was buried with his fathers in the City of David. Therefore the City of David was on Ophel, and my position is proved by Captain Conder himself. This mistake of his, which I pointed out six years ago (1881, 95), seems to show that "disputants retain their opinions," probably because they do not carefully examine the evidence bearing on the question under discussion, even to comparing Chronicles with Kings.

But further, Uzziah was buried with "his fathers." As all the kings after David and Solomon downwards to Uzziah, with only one exception,

are all said (see H. B. S. W.'s table, 1882, 266) to have been buried "with their fathers," we have a distinct Biblical assertion that they were all buried together in the same locality, though not all in the same sepulchres.

Therefore, *nolens volens*, Captain Conder is forced to admit (if argument influences him) : 1, that David was as much buried on Ophel as was Uzziah, and (2) that the Sepulchres of David (Neh. iii, 16), need not mean anything else than the place where David was actually buried. The fact is the southern part of Ophel was the cemetery for good and bad kings alike down to the time of Manasseh.

3. When Captain Conder says that there is no doubt that Akra was west of the Temple, he makes a statement directly contrary to the whole testimony of Josephus, as I showed (*Quarterly Statement*, 1886, 26). Here, again, I must suppose that he has not read my remarks on his theory.

4. Captain Conder's energy seems to waste itself in opposing a theory which places David's capital on the little spur of Ophel. Let me say once for all, that (in these pages) no one has ever advocated such a theory. It is a chimera of Captain Conder's own invention. He has indeed attributed it to me and also to Professor Sayce, but both of us have distinctly repudiated it. My theory is, that even in the time of Joshua, Jerusalem occupied ground on both sides of the Valley of Hinnom (*i.e.*, the Tyropœon), being both in Judah and Benjamin, and therefore was not confined to Ophel, while Professor Sayce includes the temple hill in his Jerusalem of David's time, though wrongly, I admit. If, ceasing to fight with his own shadow, Captain Conder will turn his attention to the arguments of H. B. S. W., and to mine, perhaps we shall soon have the aid of his pen against other errors.

5. Captain Conder thinks that no engineer would be able to agree that a fortress could have stood on Ophel. I can forgive one of my cloth (Canon Tristram, 1885, 107 ; 1886, 34) falling into error on this point ; but, O ye heroes of Rorke's Drift, what think ye of a R.E. rejecting Ophel as indefensible, when with time and stone without stint, a position that with a wall of 50 feet high would not on any side be overtopped within 400 feet, is condemned off-hand as untenable ?

What, I ask, at a distance of 400 feet, had a stone fortress in David's time to fear from bows, slings, and javelins, and even all Jonathan's artillery ? The answer must be, Nothing.

6. Access to the Gihon spring, Captain Conder takes to have nothing to do with the position of the castle (of) Zion, as other fortresses were often far away from the nearest spring. Exactly so, and all the other fortresses in the mountains were accordingly captured, while Zion for four centuries remained secure, and was only at last taken by treachery. Even Antiochus the Great could not take Rabbath Ammon, until its water supply was cut off. In opposition to Captain Conder I may quote the words of Sir Charles Warren in 1879 : "The strongest point to my mind in favour of Ophel having been the ancient site of the Jebusite city is the fact of the one spring of water being found there. I have carefully noted the manner in which the Kafirs have located themselves close to water

in their various strongholds, and I think, that, unless there were very urgent reasons, the Jebusites would have located themselves near what is now called the Virgin's Fount."

It seems hardly fair that Captain Conder should bear the whole burden of fighting against the truth. Will none of those who hold somewhat the same opinions, as Canon Tristram and Sir C. Warren, or who spread his Jerusalem errors, as Mr. Henderson in his "Palestine," do justice to their views by trying to defend them in these pages? A little investigation would, I hope, reveal to them how greatly one is misled by taking Jerusalem sites on trust.

W. F. Birch.

THE CITY OF DAVID.

III. Zion, South, not North of the Temple.

Fergusson, followed by Thrupp (and Lewin partly), placed Zion rightly on the eastern hill, but wrongly north of the Temple.

Let me briefly point out the unsoundness of the arguments alleged in favour of this northern site.

1. He quotes Psalm xlviii, 2, "Mount Zion, on the sides of the north, the city of the great king." These words seem to me too ambiguous for any argument to be built upon them. Thrupp (Jerusalem, 19) refers to the Prayer Book version: "Upon the north side lieth the city of the great king," which, he adds, "may be taken as identical with the City of David." If Hebrew scholars will agree that the original words *must* mean that the city lieth on the north side of Mount Zion, and cannot mean that Mount Zion is on the north side of the city (as I interpret them), the supporters of the northern site are welcome to have this passage in their favour.

2. On this verse Fergusson quotes the Rabbis from Lightfoot as in his favour, but he errs with Lightfoot (as they are really against him), overlooking the distinction between *Zion*, the City of David, of the historical books of the Bible, and Mount Zion which always, in 1 Macc., means the Temple hill (xiv, 27, compared with 48), if not in the Bible.

Lightfoot, with Psalm xlviii, 2, compares Isaiah xiv, 13: "I will sit also upon the mount of the congregation (*i.e.*, Mount Zion) in the sides of the north," and Ez. xl, 2, "He set me upon a very high mountain, by which was as the frame of a city on the south." He then quotes the Rabbis thus: "Aben Ezra, Mount Zion is on the north side of Jerusalem; Lyranus, Mount Zion is in the north part of Jerusalem; Kimchi, the Temple, was to be built on a mountain as before, and the City of Jerusalem is near it on the south;" and Lyranus again, "the Temple was in the north part, but the city in the south part." Lightfoot, however, not observing the above distinction, adds, "Behold! reader, Zion (he ought

to have said Mount Zion) on the north, in the Psalmist, and the city on the south part, in the Prophet." Elsewhere, Lightfoot makes the same mistake: "The mountain of the Temple will be found lying northward of Jerusalem," and he adds, "and Zion northward of the mountain of the Temple." See also prospect of the Temple: "Mount Moriah, this mountain seated in midst of Jerusalem . . . . . on the south Jerusalem; on the north side lay Mount Zion."

Thus, while the Rabbis say that Mount Zion (*i.e.*, the Temple) was north of Jerusalem, and the city south of the Temple (*i.e.*, Mount Zion), and only refer to *two* places; Lightfoot goes wrong making *three* places out of the *two*, through not discerning that Mount Zion was identical with the Temple, as in 1 Macc.

Thus the appeal to the Rabbis is *against*, and not in favour of, the northern site for the City of David.

3. Thrupp says, "That the Acra of Antiochus (*i.e.*, the City of David, 1 Macc. i, 33) stood to the north of the Temple, can hardly admit of question. Josephus, who is a competent authority on this point, tells us that it overlooked, or rather, overlay the Temple." Unfortunately, however, for this argument Josephus shows that he is *incompetent*, for he contradicts 1 Macc. (his authority for these times), and makes Nicanor go *down* from the Acra to the Temple, although 1 Macc. says distinctly that he went *up*. This northern theory is simply baseless. I have shown that the Rabbis are not its friends but its foes; that when it rests on Josephus, he contradicts 1 Macc. vii, 33. For it to agree with the Bible, Neh. iii must be chopped into pieces and pieced afresh, and, according to Thrupp, "David" altered into "Solomon," in Neh. xii, 37.

But here, against Fergusson (Temple of the Jews, 53), I maintain that Neh. iii is an *orderly* (1879, 176) description of the wall. The order of the verses is as important as the order of figures in a sum. Against Thrupp (Jerusalem, 172) I maintain that the "the House of David" cannot mean the Palace of Solomon, which stood not on the south-western, but on the eastern hill, and with which David had nothing whatever to do.

Indeed, in his last book (Temples of the Jews), Fergusson is willing to accept Ophel as an alternative site for the Sepulchres of David which were in "the City of David," while Thrupp and Lewin are inclined to admit that this term afterwards extended to the part south of the Temple. For 2 Chron. xxxiii, 14, which Thrupp claims, I must refer the reader to *Quarterly Statement*, 1885, 104.

I have already proved directly that the City of David was south of the Temple (1885, 100, 208; 1886, 26). I must also now claim to have proved this by the exhaustive process, for as it has been shown that there is no proof that it was *west*, or *south-west*, or *north* of the Temple, it only remains for it to have been *south*, the only other possible site, and this has again and again been demonstrated to be the true site. Therefore Zion, the City of David, was on Ophel.

IV.—Zion, not Jerusalem in General, in the Historical Books.

This broad view, which allows every site to be right, except the correct one, needs but little notice. It meant to make things pleasant all round, by telling each combatant his site was true, and could be proved by sound argument.

(1) As I have shown that there is no evidence for the western or south south-western or northern position for the City of David, while there is abundant evidence for the Ophel site, it is to be hoped we have heard the last of this greatest of imposters.

(2) It may be urged that the LXX in one passage substitutes Zion for Jerusalem (1884, 198), and that Josephus always substitutes Jerusalem for the City of David in speaking of the burial of the kings.

To this I would reply that Zion in the prophetical books often seems to be equivalent to Jerusalem, so that it might easily be interchanged for Jerusalem in the LXX, though possibly the translator in 1 Kings, viii, 1, may have made the change accidentally, or to show off his topographical knowledge.

Josephus, on the other hand, merely sacrificed precision by the alteration he made, and being perhaps perplexed thought this the best way out of his difficulty.

(3) It is urged that Josephus (Ant. VII, iii, 2) says that David called Jerusalem "the City of David." I ask—Whence did Josephus obtain this information? And if it is said he obtained it from 2 Sam. v, 9, then (in *Quarterly Statement*, 1886, 29) I showed how very far his paraphrase is from being true to his text.

I now claim to have proved beyond fear of refutation, that Zion, the City of David, was solely and entirely on Ophel.

Contradiction, without either argument or any attempt to meet the evidence I have brought forward, I take to reflect not on my theory, but on the intelligence of the opponent, as condemning a theory which he cannot upset.

To the map-makers I make my humble request that they will not for the future perpetuate a glaring and flagrant falsehood by ever writing the name, "the City of David," at Jerusalem, anywhere except on the hill south of the Temple.

W. F. Birch.

NEHEMIAH'S NIGHT-RIDE.

The topography of ancient Jerusalem is a very perplexing question, and in studying it, while nothing is more helpful than to compare the third chapter of Nehemiah with the twelfth, nothing is more vexing than to find that even the two accounts taken together are insufficient. They may, however, be supplemented, to some small extent, by Neh. ii. 13–15: "I went out by night by the valley gate, even toward the dragon's well,

and to the dung gate, and viewed the walls of Jerusalem, which were broken down, and the gates thereof were consumed with fire. Then I went on to the fountain gate and to the king's pool: but there was no place for the beast that was under me to pass. Then went I up in the night by the brook, and viewed the wall; and I turned back, and entered by the valley gate, and so returned."

I have always been inclined to fancy that Nehemiah left the city by the Jaffa gate, rode southward, made a vain attempt to ascend a re-entering angle at the Tyropœan valley, and retreating thence followed the brook Kedron northward, turned to the left at the N.E. corner of the city by the sheep gate, and thus got back to the Jaffa gate, after making the circuit of the city. But the valley gate may not be the Jaffa gate, and if Neh. iii, 13, means that the dung gate was only 1,000 cubits from the valley gate, it cannot be so. We have the dung gate bearing the same name still, and with the sewage flowing out near it. Taking this as a fixed point, the gate 1,000 cubits west of it is the gate of David. I will only assume, therefore, that Nehemiah left the city through some gate near the south-west corner. He then made towards the *dragon's well.* This we may probably identify with the Virgin's fountain, seeing that this fountain has been called the well of the dragon, and the well of the sun, and a common legend explains the intermittent flow of the water by declaring that a dragon lies within it who wakes and sleeps. When awake he stops the water, but when he sleeps it flows. (By the way, it seems worth remarking that in the myth of Cadmus the well of Ares was guarded by a dragon, which the hero killed.) Having come near to this well—towards it, but not unto it—Nehemiah bent his way northward to the dung gate. I conceive that the fountain gate and the king's pool, which he came to next, were situated in that part of the chine which is now within the city wall, and filled with *débris.* In Nehemiah's time it was so far from being filled that the entrance to the sepulchres of the kings was visible, and so far from being on a level with the ground east and west of it, that pedestrians in passing from one hill to the other had to make use of the stairs that went down from the City of David (see Neh. iii, 15; xii, 37).

Two or three things deserve mention here:—(1.) Such a re-entering angle appears to be required in order to find room for the length of the wall as indicated in Nehemiah's descriptions, for without this the many places mentioned will seem to be too crowded together. It is because there is such a sinus that the first company, in chap. xii, forsake the wall, and make use of the stairs of the City of David, after which they get on to the wall again. They may forsake the wall and take the short cut, either to reduce their journey to the same length as that of the second company, or possibly because that inner part of the wall was not broad enough to walk upon, or was not yet completely repaired.

(2.) The passages favour the idea that the City of David was on the eastern hill. The stairs "go down from the City of David," yet the

company goes up by those stairs in a journey which seems to begin somewhere near the Jaffa gate, and end at the Temple.

(3.) The obstruction to Nehemiah's progress seems to be accounted for by the nature of the spot. There being two walls running parallel to one another for some distance along the sinus, the destruction or dilapidation of both would result in double heaps of ruins in a narrow space.

(4.) It will be observed that the greatest desolation is found on the south side of the city, as though the last assault had taken place on that side. Nehemiah surveys the southern walls and gates first—surveys them leisurely—mentions one spot after another, and the impossibility of getting along; and then hurries over his journey by the brook and round the north of the city homeward. The impression we thus get of greater destruction on the southern side is confirmed by the description of the work of restoration in chapter iii, where it would appear that a larger number of independent workers find occupation on the southern side than on the northern. It is generally assumed that because the northern part of the city afforded higher ground, from which the assault could be delivered more easily, that, therefore, the city would always be assaulted on that side, and the southern and south-eastern parts would not suffer much. But even supposing this to be so during the actual assault, the conqueror might take all the more delight in demolishing afterwards the walls which had defied him.

GEORGE ST. CLAIR.

SEPULCHRES OF THE KINGS.

WHY should not excavations be made at Jerusalem with the direct object of finding the tombs of David, Solomon, and their successors? The area of search would be limited, for most of the kings were laid to rest "in the City of David."

1. We may assume that the tombs would be excavated in the hill-side. In a country so rocky as Palestine, the dead could not be buried in the soil as a general rule, for the soil would be absent and an excavation must be made. Tombs could be excavated in the side of a hill with less labour than from the upper surface, and would be more accessible.

In ancient Egypt tombs were built of brick and stone, or hewn in the rock, according to the position of the necropolis; and whenever the mountains were sufficiently near the latter was preferred (Wilkinson's "Ancient Egyptians," chap. x).

Tombs thus excavated in the hill-side may be seen at Jerusalem, on the eastern side of the valley of Jehoshaphat.

At the so-called Tombs of the Kings, north of the city—the most noticeable sepulchre at Jerusalem, and regarded as the tomb of Helena, Queen of Adiabene—a trench is indeed sunk in the rocky level, and a large court also, open to the sky; but this artificial hollow is made for the

purpose of *obtaining* a hill-side where none existed, and the tombs are then excavated laterally.

The graves in the modern cemeteries at Jerusalem may be dug in the soil, but this exception is not to the point, because the "soil" is artificial *débris*, which has accumulated since the days of the early kings of Judah. Where the Mohammedan cemetery exists, under the east wall of the Haram Area, Sir Charles Warren found loose stone chippings and other rubbish to a depth of 70 or 80 feet; but on various parts of the rocky bottom the remains of stone walls, showing that the rock at one time formed the surface.

The Scripture statement that the kings were buried *in* the City of David is not inconsistent with the idea that the sepulchres were excavated from the outside; for the bodies, though carried out of the city for burial, and deposited in the rocky chamber, might very well be under the city streets, perhaps under the royal palace, and accessible by a shaft from the palace grounds.

2. The valley in which the tombs were cut would be some part of the Tyropœan, so that the area of search need not be very large. Much of the ground, fortunately, is accessible, either lying outside the walls, or covered only by cactus gardens within.

Certainly there is the moot question, on which hill was the City of David? and until this is decided we cannot tell whether we should keep to the eastern or the western side of the valley in our search. The Egyptians preferred western hills for their tombs, because they afforded a face to the east. The necropolis of Thebes was on the western side of the Nile. The temples built in front of a pyramid, for the worship of the king, and the *mastadas* erected above ordinary tombs have their entrance always from the east. We cannot be sure that the Hebrews would follow this example, but their temple on Mount Moriah opened to the east.

In the excavation made by Queen Helena, also, the portico is on the west side, and so, of course, is open to the east. On the other hand, some of the tombs on the eastern side of the Kedron Valley open to the west.

3. It is quite feasible that the tombs and the sarcophagi, perhaps even the bodily remains, should be found. They are not yet 3,000 years old, and we have recovered and identified the mummies of Egyptian monarchs of much older date. Wilkinson reminds us that the custom of embalming bodies was not confined to the Egyptians. "The Jews adopted this process to a certain extent, 'the manner of the Jews' being to bury the body 'wound in linen clothes with spices,' as Lazarus was swathed in bandages." We have no historical account of the sepulchres having been disturbed. While the Kings of Judah were in power the tombs of their ancestors would be safe, and after the accumulation of *débris* in the valley the mouth of the cave or excavation would be covered and hidden. Besides, even when tombs are rifled and bodies stolen, stone coffins remain, and inscriptions abide to tell us of the past—as we see by the sarcophagus of Cheops in the heart of the Great Pyramid. Think of the

intense interest that would attach to the discovery of David's tomb, with an inscription in the oldest form of Hebrew ever found!

4. Might not this question be submitted to a committee of experts who should decide upon the most promising points for probing the ground?

GEORGE ST. CLAIR.

THE SAMARITANS.

I. *Their Numbers.*—There appears to be some mistake abroad concerning the actual number of the Samaritans, and this, of course, affects the question of the probable survival of this interesting people for a longer or a shorter time. In Dean Stanley's "Lectures on the Jewish Church," Part I, Appendix II, mention is made of "the whole community—amounting, it is said, to 152, from which hardly any variation has taken place within the memory of man." This was during the Prince of Wales' visit to Palestine in 1862, and it does not lead us to expect any early decline. But Captain Conder, in "Tent-work in Palestine," assures us that year by year the Samaritans are dying out. "Clinging to Shechem and the Holy Mountain, they are the last left of the nation which in the fifth and seventh centuries spread far over Palestine and Egypt." "In 1872 the little community numbered 135 souls, of whom no less than 80 were males. The Moslems say that the number is never exceeded, and that one of the 80 dies as soon as a child is born. By the defection of Jacob Shellaby with his family they have been reduced to a total of 130 souls."

A decline of 17 souls in ten years—reducing the numbers from 152 in the year 1862 to 135 in the year 1872—would bring the numbers down to 110 in 1887, if the decline continued, and end in the speedy extinction of the race. On a recent visit to Nablus I made inquiry on this point, and my questions were put to the High Priest himself. His reply was that his people numbered from 96 to 100, but this (he said) was without counting certain women and children, who might bring up the number to 165. If these women and children were included in Dean Stanley's estimate, there would appear now to be some increase in the number of souls; but if they were not taken into account either by Dean Stanley or Captain Conder, it would seem that the decline of the little community is proceeding at an accelerated pace.

II. *The Ancient Copy of the Law.*—Travellers have spoken of the great difficulty they experienced in obtaining a sight of the most ancient Samaritan roll. In 1865 it was considered a great favour, I believe, shown to Sir Charles Wilson, that he should be allowed to photograph it for the Palestine Exploration Fund. Captain Conder describes the difficulties raised, in a later year, when he and Mr. Drake visited the Synagogue. The High-Priest Amram first brought out the latest scroll—written in black ink on parchment, rolled on two rollers, and enclosed in

two cylinders of brass—and affected to be surprised when Mr. Drake asked to see the next. They did see the next, which was of older appearance, also in a brass case, with huge knobs to the rollers. The High Priest and his nephew Jacob now declared that there was no older scroll, but Mr. Drake knew that there was, and eventually they succeeded in seeing it. It is kept in a silver case, and purports to have been written by "Abishuah, son of Phinehas, son of Eleazar, son of Aaron the priest, in the thirteenth year of the possession by the children of Israel of the land of Canaan and all its boundaries."

Captain Condor found that the priests manifest the greatest reluctance to showing this sacred relic; it is a Samaritan Fetish, and is only seen by the congregation once a year, when elevated above the priest's head on the Day of Atonement.

I suppose, therefore, that the priests have adopted a new *ruse* to throw the curious off their guard, and that I and my companions were too credulous on our recent visit. We were shown first a book of the Law in volume form, which was said to be 750 years old. Next, an older looking copy, a *roll*, asserted to be 1,260 years old. Lastly, a roll in a silver case, which we were assured was written by Abishua, the great-grandson of Aaron, 3,472 years ago. I only carried in my mind that the first and second copies usually shown to travellers were comparatively modern, and I must insist on seeing a third; I did not remember that all three were to be *rolls*. And when the High Priest declared on his word that the third book which I had seen was really the oldest they possess, I thought probably he was to be trusted. I was a little surprised that he should sell me a photograph of himself, holding this roll open; but I supposed that a good deal of reticence might have disappeared since 1865, and *backsheesh* was year by year proving more potent.

I may mention that the silver case which contained the oldest copy of the Law shown to us was covered with engraved symbols, among which I noticed the cherubim (which appeared to have the head and wings of a bird); "Aaron's rod," which was quite a tree, and very much like the conventional tree of mythology; and the "flames from the altar," which had a conventional form, such as is seen in hieroglyphics. This silver case, we were told, was 300 years old.

GEORGE ST. CLAIR.

[illegible] when Mrs. Dodo
[illegible] the room, which was of older appear-
[illegible] with huge knobs to the rollers. The high
[illegible] Dodo knew that there was no other small
[illegible] Dodo knew she knew and eventually they succeeded in
[illegible] It is kept in a drawer and proposes to have been written
by "A Dalmatian son of Dalmatian parents" of Eleanor son of Anna the priest.

The [illegible] of the occasion by the children of Israel of the
[illegible] (Chosen and all [illegible]).

Captain [illegible] found that the priest installed the great telescope
[illegible] in the Bazaar, also it is a Georgian Portal, and is only seen by
[illegible] operation once a year, when [illegible] above the priests head on the
[illegible] of Atonement.

[illegible] there are that the priests have adopted a new way to throw
the cowries of their guard, and that I and my companions were the
creatures on a recent visit. They were shown [illegible] a book of [illegible] in
[illegible] and was said to be 750 years old. Next an [illegible] binding
[illegible] [illegible] to be 1,200 years old. Lastly a roll in a silver case
which we were permitted to handle. Although the [illegible] of
[illegible] 2,112 years [illegible] only [illegible] that the [illegible] and
second copies [illegible] to have been comparatively modern, and
I was taught on seeing a [illegible]. I did not remember that [illegible] were
to be read when the [illegible] Priest declared on this word that the
[illegible] which I had seen was really the oldest they possess. I thought
privately it was to be treated. I was a little surprised that he should
sell me a photograph of himself, holding his roll open, but I am proud
that a real deal of reticence might have dampened also [illegible] and

I may mention that he [illegible] which contained the oldest copy of
the law shown to me was covered with [illegible] sprinkle among which I
[illegible] the obverse colour appeared to have the head and wings of a
[illegible] "Cherubim" which was quite a tree and very in the like
[illegible] representations [illegible] and the "Statues from the altar" which
had [illegible] forms such [illegible] properly place. This always
[illegible] we were told was [illegible]

(Signed) St. Clair.

THE PALESTINE EXPLORATION FUND

NOTES AND NEWS.

With this number is completed the "Survey of the Jaulân," by Herr Schumacher. The work was originally executed for the German Palestine Exploration Society, and published in their "Zeitschrift." We have been enabled to translate it by the kind permission of the Committee of that Society, and have obtained from Herr Bädeker all the blocks for the illustration of the work.

It has been printed with large margins, so that while it is uniform with the *Quarterly Statement*, and may be bound up with that journal, subscribers may detach it and have it bound in the same form and size, and with a similar cover, as Captain Conder's works.

The Committee will be happy to exchange bound copies for the unbound copies presented with the *Quarterly Statement*, at the price of 1*s.* 6*d.* each, to cover binding and postage.

With the July or the October number will be presented Herr Schumacher's Survey of Pella, the city to which the Christians fled on the outbreak of the troubles in Jerusalem. There are many drawings and plans to accompany this memoir.

Herr Schick follows up his paper on the discovery of Constantine's Pavement with Notes which demand careful attention. Sir Charles Wilson has added remarks upon these Notes, which separate theory from fact. It is greatly to be hoped that the Russian Society will carry on this work, which is upon their own ground. The discovery of the two pavements, the supposed ditch of the second wall, the granite columns, open up questions of the highest importance.

The List of Old Testament names and identifications was issued last year. That of New Testament names, which contains the references in Josephus to the New Testament places, is nearly ready. It will be issued before the end of April. Subscribers can have copies of the latter, separate, at 1*s.*, and of the two together, in paper cover, for 3*s.*, and bound for 3*s.* 6*d.*, by application to the office only. To the general public the price of the book will be 6*s.* 6*d.*

Meantime, with the view of clearing off the MSS. which await publication, the Committee have resolved on issuing an edition in form similar to, and uniform with, the "Survey of Western Palestine," of the following works:—

1. Conder's "Survey of Eastern Palestine," so far as completed. The MS. is very voluminous, containing as much as will make a volume equal in size to those of the "Memoirs" in the "Survey of Western Palestine." None of it has been published; the drawings are very numerous, and of the deepest interest to the student of prehistoric monuments, as well as for the illustration of the Bible.
2. The Archæological Mission of M. Clemont-Ganneau, with the drawings of M. Le Comte.

   These drawings are many hundreds in number, and executed in the finest style. They figure a vast number of monuments and ruins not in the "Memoirs."
3. The Flora and Fauna of the Wady Arabah, by J. Chichester Hart, Esq., accompanied by many drawings of plants, &c., in the best style.

The editions will be limited to 500. The first 250 subscribers will pay seven guineas for the three volumes; subscribers to the "Survey of Western Palestine" will be privileged to have the volumes for this sum. The price will be raised, after 250 names are received, to twelve guineas. The Committee *are pledged never to let any copies be subscribed under the sum of seven guineas.* Mr. A. P. Watt, 2, Paternoster Square, is the agent.

The Director of the Palestine Pilgrims' Text Society promises the following works for the year 1888:—

The Pilgrimage of the Abbot Daniel—now ready.

The Norman-French Description of the Holy Land and of Jerusalem—ready in May.

The Travels of Nasîr-i-Khosrau, translated by Mr. Guy le Strange—in June.

Arculfus de Locis Sanctis, translated by Rev. R. Macpherson—in June.

Two Letters, from Sir Joseph de Lancy, Knight Hospitaller, to King Edward the First, endorsed "News from Syria," and from the King to Sir Joseph.

The Report and Balance-sheet of this Society for the last year are now ready. Readers will note that the library it is forming of pilgrims, geographers, and historians is quite unique, and cannot be procured except by subscribing to the Society.

The friends of the Society are earnestly requested to use the "Memoirs of Twenty-one Years' Work," as a means of showing what the work has been, and what remains to be done.

An announcement was recently made in the papers to the effect that, among the Sidon sarcophagi, was one containing the body of Alexander the Great. So far the news is not confirmed, and there seems every reason to doubt the fact, unless the details given by the historians are all wrong.

Subscribers are very earnestly asked:—(1) To pay their subscriptions early in the year—say in January. (2) To pay them direct to Coutts and Co. by a banker's order. (3) If they would rather choose their own time, to send up their subscriptions without being reminded. The Clerical Staff of the Society is small; it is most desirable not to increase it; and if these simple requests are attended to a great saving of clerical labour, postage, and stationery is effected. For instance, there are, say, 3,000 subscribers. If every one of these waits to be reminded, and has to have a receipt sent to him, the Society has to spend £25 a year in postage, and to write 6,000 letters, merely to ask for and to acknowledge the receipt of the subscriptions.

The following books are now published uniform in size and appearance :— Conder's "Tent Work;" Conder's "Heth and Moab;" Schumacher's "Across the Jordan;" "The Memoirs of Twenty-One Years' Work;" Conder's "Syrian Stone Lore;" Conder's "Altaic Inscriptions," and Schumacher's "Jaulan." Subscribers can have the whole set, together with Hull's "Mount Seir," and Names and Places, for 32*s.*, carriage free.

Mr. Armstrong has prepared a list of the photographs belonging to the Society arranged alphabetically according to those Bible names which are illustrated by views. This list is now ready. Those who wish for a copy may send in their names.

The income of the Society, from December 14th, 1887, to March 21st, 1888, inclusive, was—from subscriptions and donations, £492 3*s.* 3*d.*; from all sources, £971 12*s.* 1*d.* The expenditure during the same period was £864 15*s.* 5*d.* On March 23rd the balance in the Banks was £328 6*s.* 6*d.*

Subscribers who do not receive the *Quarterly Statement* regularly, are asked to send a note to the Secretary. Great care is taken to forward each number to all who are entitled to receive it, but changes of address and other causes give rise occasionally to omissions.

While desiring to give every publicity to proposed identifications and other theories advanced by officers of the Fund and contributors to the pages of the *Quarterly Statement*, the Committee wish it to be distinctly understood that by publishing them in the *Quarterly Statement* they neither sanction nor adopt them.

The only authorised lecturers for the Society are—

(1) Mr. George St. Clair, F.G.S., who has lately returned from his Eastern tour, and is giving Lectures for the Society in all parts of Great Britain. His subjects are—
   (1) *The Buried City of Jerusalem*, and General Exploration of the Holy Land. Numerous diagrams.
   (2) *Buried Cities of the East.* Numerous diagrams.
   (3) *Sight-seeing in Palestine.* Lantern views, where local help can be obtained.

   Address : G. St. Clair, Bristol Road, Birmingham; or at the Office of the Fund.

(2) The Rev. Henry Geary, Vicar of St. Thomas's, Portman Square. His lectures are on the following subjects :—
   The Survey of Western Palestine, as illustrating Bible History.
   Palestine East of the Jordan.
   The Jerusalem Excavations.
   A Restoration of Ancient Jerusalem. Illustrated by original photographs shown as "dissolving views."

(3) The Rev. James King, Vicar of St. Mary's, Berwick. His subjects are as follows :—
   The Survey of Western Palestine.
   Jerusalem.
   The Hittites.
   The Moabite Stone and other monuments.

(4) The Rev. James Neil, formerly Incumbent of Christ Church, Jerusalem.

TREASURER'S STATEMENT.

Subjoined is the Balance Sheet for the year 1887. It will be observed that under the head of Management only £407 5*s.* 7*d.* has been expended; this is much less than heretofore in consequence of the Secretary having drawn no salary. Under the new arrangement Mr. Armstrong becomes Assistant Secretary. The management expenses will amount to about £500.

The amount spent on Exploration shows that the work of the Committee is still actively carried on.

The Society has agents in the country who neglect no opportunity in pursuing those investigations, the results of which are given to subscribers in the *Quarterly Statement.*

The income of the Fund from the sale of their books now amounts to a considerable sum. The great excess of expenditure over receipts under the head of "Printers, &c.," is due to the cost of the *Quarterly Statement*, the publication of which is necessary for the very existence of the Society. It also includes the postage of the *Statement* for the year.

BALANCE SHEET FOR YEAR ENDING 31ST DECEMBER, 1887.

Receipts.	£	*s.*	*d.*
Balance, 31st December, 1886	322	11	0
Donations, Subscriptions and Lectures..	1,572	9	11
Maps and Memoirs ..	280	10	4
Books	369	10	3
Photographs	5	1	5
	£2,550	2	11

Expenditure.	£	*s.*	*d.*
Management	407	5	7
Exploration	647	14	0
Printers and Binders ..	942	4	0
Maps and Memoirs ..	337	3	7
Balance, December 31st, 1887	215	15	9
	£2,550	2	11

In other words, the total expenditure was £2,334 7*s.* 2*d.*, of which exploration took 27·7 per cent.: publication, 54·8 per cent.: and management 17·5 per cent.

As regards the present financial position of the Fund, we have already this year lowered the liabilities in the account of printers, binders, and lithographers by nearly £500—under this head we have a debt which is always being diminished and always increasing.

The debt of £850 has been reduced by £150.

The accumulated mass of memoirs which has been so long waiting for publication will, it is hoped, be all issued before the end of the year in an edition limited to 500 copies, uniform with the *Survey of Western Palestine.*

But new materials are always coming in, and subscribers who ask what the Society is now doing are reminded that it is not the accumulation of facts alone that is wanted but their publication.

WALTER MORRISON,
Hon. Treasurer.

NEW EXCAVATIONS IN JERUSALEM.

I.

Jerusalem, February, 1888.

In October, last year, I sent the Palestine Exploration Fund some drawings, with notes, of the old "Market"[1] to the south-east of the Church of the Holy Sepulchre. They were published in the *Quarterly Statement* for January, 1888, page 17, and I now send plans and sections of what was found to the *north* of the old "Market."

Plan No. 1.—At the bottom, on the left side, is part of the present *Sûk*, or Market. North of it is the street, *Khan ez-Zeit*, running to the Damascus Gate, or *Bâb el-Amûd*. Along this street there are shops; and at the north end of the plan are steps, and a raised road, passing over arches westwards to the Coptic and Abyssinian Convents. Near these steps are three granite columns, broken, but still *in situ;* a fourth was removed about twenty years ago, when a door was broken through the wall to make a wood-store. There are also some remains of a pier or stone jamb; and this, with the columns, formed in the Byzantine period the "Propylæum" of Constantine's Church; the columns probably extended farther north, but this cannot be ascertained on account of the buildings.

The wall which now closes the space between the columns was apparently built by the Crusaders. The open area between the columns and the east wall of Constantine's Church was vaulted as it is now. At the south end of the vault, which shows traces of restoration, there is an old wall, partly Jewish, but principally Byzantine.

At the bottom of this wall there is the ancient "threshold" (*see* Sect. 2); it is one stone, with a tread little more than one inch high, for the folding doors to shut against. The "threshold" of an ancient door is certainly Jewish, and in the Byzantine time it was used again as a door; but it opened (unexpectedly) outwards, proving that the open Propylæum could be shut up against the court of the Church. The lower part of the western wall of the Propylæum is of Jewish masonry, with drafted stones; higher up it is of Byzantine masonry, which can be well seen in the houses to the north; it formed the east wall of Constantine's Basilica. The southern wall of the Basilica was also built on old Jewish masonry, which forms a slightly obtuse angle with the east wall. This angle and the lowest course of stones in the wall are Jewish; the stones of the upper courses are smooth, smaller, and Byzantine. On the north side of this wall stone corbels were inserted at a later time (perhaps by the Crusaders), in order to vault the space. In the parallel wall to the north there are similar corbels. The Byzantine building, according to Eusebius, had no vaults or arches, but was roofed with timber, &c. South of the southern wall of the Basilica is a fine platform,[2] paved with very large

[1] The old market has been pulled down and no trace of it can now be seen.

[2] About seven feet above the surface of the street *Khân ez-Zeit* to the east. The rock is very near the surface of this upper platform.

flat smooth stones. On the north part was an open passage beside the Church ; on the southern part a cloister or covered passage. From this raised platform, broad steps lead down to a similarly paved platform, nine feet below, and to the old gate. (*See* No. 3.)

Some traces of rock-hewn steps can still be seen. In the Russian part of the vault, on the site of the Propylæum, a pavement was found, formed of large stones, from 1 foot to 1½ thick, more than 3 feet long, and 2 feet 6 inches to 2 feet 8 inches wide, nicely and exactly laid, with good joints ; the upper surfaces are very smooth, as if originally polished. This pavement extends southwards to the street *Ed-Dabbaghin*, or as far as the place was cleared of ruins, stones, and earth ; it probably extends further south, and perhaps also to the east. It has a fall towards the south, so that the water could run into the rock-hewn sewer, or, further south, to the masonry sewer. (*See* Nos. 1 and 2.) About the middle of the pavement is the so-called "Greek Arch," known for many years and figured in books about Jerusalem.[1] The north pier is apparently Byzantine, built of smooth and well-cut stones, which are much damaged by age. The south side is formed by a column with a block capital, unlike the one on the pier. This has puzzled everyone, and given the impression that it is a reconstruction and not the original arch ! Yet the column may be genuine with a wrong capital upon it. In this case the column must have stood in the centre, and the whole have formed a double arch. So the Russian Archimandrite understood it, and he intended restoring the arch according to his view. He built a new pier to the south, prepared a Corinthian capital, &c. ; but, on closer examination, I found there had been only one arch, and no column. It is quite clear that the northern pier was once broader (as shown in Nos. 1 and 2). No 2 gives, in elevation, the number and size of the stones where the joints do not run through.

I have shaded the older or Byzantine portion, and am convinced that the southern pier originally had the same form and size, and that the Corinthian capital, which carries one side of the arch, stood on the southern pier, like the one on the top of the northern pier. In the Byzantine portion there are five courses of stones from the pavement to the spring of the arch ; I cannot tell the thickness of the missing abacus, but the curve of the arch can still be seen (in No. 2). In place of the abacus there is now a stone, with mouldings on its face, which I think must have been the key-stone. The key-stone certainly had some ornament ; it was probably broken by the falling of the arch, and then chiselled to fit its present place. In accordance with these indications, I have restored the arch in No. 3. The arch probably had an attic, which I have not attempted to restore. The entrance to the passage is 12 feet 8 inches wide, at the centre it is 14 feet wide, and it is 13 feet deep. It was once arched over, and I think it was a monument of some event ; very likely

[1] *See* Sepp, "Jerusalem and the Holy Land," i, 226, where it is called an ancient town gate.

of the passing of our Lord to Calvary. It formed at the same time an entrance to Constantine's Church, for a road ran westwards from it, along the side of the southern cloisters of Constantine's Church, which stood at a higher level, to the present south court of the Church of the Holy Sepulchre. It might thus be considered part of the Propylæum mentioned by Eusebius. The column is of reddish limestone, and so is the cracked unfinished capital; but the basement is of white marble, which has apparently been used a second time. Another similar basement was found in the rubbish near the side of the column.

As the Russians found no cistern on their property, and water was required for any building erected upon it, they resolved to make a new cistern. North of the "Greek Arch" the rock was known to be everywhere near the surface, and as it would have been difficult to dig a cistern there, they determined to try the ground to the south. They removed the Byzantine pavement, and finding at first earth and stones, they were able to dig down 5 or 6 feet, they then came to hewn stones, lying in disorder as if they had fallen down on the destruction of a wall or building. They removed the stones until they had made a pit more than 20 feet deep, about 45 feet long, and 28 feet wide. As they had then obtained the requisite size for the cistern, and further excavation would have been dangerous on account of the loose stones on the three sides, and the proximity of the new Greek building, they did not dig deeper. They built the walls of the new cistern, and at the bottom ran in dissolved lime until all the empty spaces between the stones were filled up.

On the east side they found an ancient wall, running north and south, nearly under the present boundary wall of their property. Under the pavement the wall consisted of two courses of large smooth Byzantine stones resting on five courses of rather smaller stones, with dressed joints and rough faces. Each course is set back a few inches, as shown in Section 2A. This wall of seven courses stands on bad rubble masonry, built with small stones of all sizes and forms; what is lower down I do not know. When this wall was discovered it was rumoured that the ancient town wall had been found; this is only to a certain degree correct. It is now quite clear: first, that there was a trench here, and if this were the ditch of the town wall, the latter must have stood on rock, or above a rock-scarp, and not on rubble; secondly, the wall is not Jewish but Byzantine, with some Jewish stones built into it. Towards the south the stones are much smaller, and it seemed as if there had been a reconstruction. I cannot tell what will be found farther south, nor the real lie of the rock at the bottom of the trench, but I have embodied my views in the sections. Some of the over-turned stones in the ditch are really Jewish, with the draft on their faces, and these are the largest; the others are of different size, but all smaller and with smooth faces, I therefore call them Byzantine.

In the wall there was a door-like opening—the outlet of the sewer from the old market; I tried to clear it out, but after 5 or 6 feet found it walled up. Perhaps when the new pavement of the street is made by

the Municipality it will be opened. I think, farther east, it is rock-hewn, as a little east of this wall the rock rises above the ground. As the rock is near the surface beneath the "Greek Arch," and no rock was found 12 or 15 feet from it at a depth of 22 feet beneath the pavement, there must be a rock-scarp in the interval such as I have shown in Nos. 2 and 3. I asked the Russian Archimandrite to order the foreman of the workmen to clear away the stones for about 10 feet more towards the north, and told him he would certainly find a rock-scarp, and so have no need to build a wall there for the new cistern, whilst the cistern itself would be so much the larger. I also told him I was convinced he would find rock-cut tombs or other caves in the rock-scarp. I asked him, when the walls of the new cistern had reached a height at which there was no longer any danger, to sink a shaft in the centre of the cistern, so as to ascertain the real lie of the rock, and I offered to pay the expenses myself. The answer was that they could not do anything without an order from St. Petersburg.

The Archimandrite considers this proposed excavation interesting, and thinks my suggestions are right, but he has first to report upon it to St. Petersburg; the excavation may therefore still be made. The caves in Nos. 2 and 3 are shown as I think they will be found.

The internal measurement of the new cistern is about 40 feet by 13 feet; it is not arched but covered with iron rafters, as shown in No. 3.

The southern boundary wall of the Russian property proved to be made up of three walls; in the centre there is a thin Byzantine wall of finely hewn stones, probably standing on the pavement; this is strengthened on the inside by a Crusading wall, which stands on earth and goes down but a few feet beneath the surface. On the outside it is supported by a Moslem wall, standing on the surface of the street, which was built when the wall was beginning to give way under the pressure of the vaults with their heavy load of earth. In the Muristan, 120 feet south of the Russian property, the level of the rock is known, and if this be connected with the rock level under the "Greek Arch," it will give the original slope of the hill as shown in No. 2. The new southern boundary wall will be in a straight line with the new Greek building, as shown in No. 1. As a corner of the old building projected into the street it had to be removed, and this has partly been done. They first tried to make the new cistern there, but came upon an ancient massive wall, which, I think, is the old or Jewish wall, probably standing on a rock-scarp, as not far east of it the rock rises above the ground.[1]

CONRAD SCHICK.

[1] The rock level here was originally 2,470 feet, but it has recently been lowered to 2,468 feet above the sea.

II.

`Ir. Schick's paper completes his description of the very interesting discoveries made in the Russian property to the east of the Church of the Holy Sepulchre. It is greatly to be regretted that such a favourable opportunity for thoroughly examining and clearing this most important locality should have been lost. The questions which Mr. Schick raises with regard to the existence of a rock-hewn ditch, the course of the second wall, and the exact position of Constantine's Basilica, are of the greatest interest to every student of Jerusalem topography; and it is to be hoped that the Russian Palestine Society may be induced to resume the abandoned excavations and clear the entire area. It is only by taking advantage of opportunities of this nature that we can ever hope to re-construct ancient Jerusalem.

Though the discoveries that have been made are of high interest, I am not able to agree with the deductions that Mr. Schick has drawn from them, and it may be as well to state some of the objections that occur to me. (1) Mr. Schick believes that the granite columns in the street *Khan ez-Zeit* formed part of the Propylæum of Constantine's Basilica. In 1865 ("Notes to the O.S. of Jerusalem," 53, 54) I drew attention to the fact that "these remains, some of similar character in the ground formerly belonging to the Knights of St. John, and the so-called 'Gate of Gennath,' are nearly in the same straight line." A glance at the plan of Jerusalem will show that from the Damascus Gate a street runs southward to a point in the city wall where the Sion Gate stood before the walls were rebuilt in the sixteenth century. This street, I believe, follows the line of the main street of Ælia, which, in all probability, was adorned with columns as in the similar cases of Samaria, Scythopolis, Damascus, Gadara, Gerasa, &c. If this supposition be correct, the columns belong to the street; and the "Greek Arch" and "Gate of Gennath" are the remains of ornamental portals leading to side streets. The columns are certainly not such as we should expect in the Propylæum. Whether the Damascus Gate received its name of *Bâb el-Amûd* from these columns or from the great column which, when the Moslems first took the city, marked the centre of the world, is uncertain.

(2) That the ancient masonry uncovered is Jewish. In 1865 I made some tentative excavations, and came to the conclusion that, though old material had been freely used, none of the existing remains bore the character of mural masonry. The remains seemed to me to belong to an old church, and this view was partially confirmed by the discovery of a very fine font or basin of white marble. ("O.S. Notes," 53, 74.) The character of the masonry, however, led me to believe that the church was a re-construction after Constantine's churches had been destroyed, and that it might even be as late as the period of the Crusades. The position is not that in which we should expect to find Constantine's Basilica.

(3) That the "threshold" is Jewish. Without personal examination

I should be sorry to pass a decided opinion; but this stone appears to me to be an old lintel used during a period of re-construction, and not to be *in situ*, as Mr. Schick supposes. There seems no valid reason for believing it to be Jewish.

(4) That the new cistern made by the Russians is in the ditch of the second wall. The truth of this speculation can only be proved by excavation; it is not impossible, but the space cleared is so small that it is rash to base any theory upon it, and there may have been an old cistern on the spot. Mr. Schick's view of the further course of the ditch is open to greater objection. He places the chapel and cistern of Helena in the excavation. It is true that no rock can be seen in the chapel, on account of the plaster, but what we know of the lie of the rock near it would lead us to believe that a portion of the walls are of rock. As regards the cistern, I find in the "O.S. Notes" (p. 54), that is described as being "of irregular shape, hewn out of the *Malaki* bed, with the overlying bed of *Missae* left as a roof, one of the most ancient types of cisterns, and similar to those in front of the *Masjed al-Aksa*." If this description be correct, and I have no reason at present to doubt it, the ditch could not have run in that direction. There are other objections to Mr. Schick's theory, the discussion of which would occupy too much space.

(5) The pavements are not the least interesting of the discoveries. The lower pavement is on the same level as the floor of the Rotunda in the Church of the Holy Sepulchre; the upper one at a slightly lower level than the floor of the Chapel of the Exaltation of the Cross, which is almost due west of it. How far either or both are the work of Constantine is a question; the lower one may in part be the street pavement of the city of Ælia; the upper possibly connected with the platform of the Temple that preceded the Church of Constantine.

It is so important that researches should be carried on at this spot, that the Committee have taken steps which they hope will be successful to work in co-operation with the Russian Society.

C. W. W.

LINE OF SECOND WALL.

Jerusalem, February 14th, 1888.

I.

In the *Quarterly Statement*, 1888, page 16, Dr. Merrill pointed out that my Statements and Plan in *Quarterly Statement*, 1887, page 217, were wrong in two important points.

First, that the ancient remains of the so-called "second wall" are not in its right position and direction; and secondly, that I have not given it in full length!

To this I have only to say:—It is not my custom to go into any controversy at length, but only stating facts for my defence. In respect of

the second point I wish to say that the gentleman he calls the "Engineer" showed me the exact spot of the ancient stones towards north, at a point a little south, opposite of the corner of the street going eastwards (or the home of the Sisters of Zion), and that in the *Quarterly Statement*, 1886, page 23, Dr. Merrill himself gives its length to about 30 yards, that is 90 feet, and my drawing in *Quarterly Statement*, 1887, page 217, shows 108 feet; and in respect of its "prolongation towards north-west," the "Engineer," the mason, and other people who had seen it, told me that it was a wall of quite another description, and not grounded on the rock but standing on earth; further, in that region all foundations for the new building were made new—as I myself have repeatedly observed, and the "Engineer" told me.

In regard to the first point, the old wall shown in my plan as not giving its right position or direction I have to say: that the street had formerly been at an average of 10 feet wide, but now, after the new building is made, is now on an average of 15 feet wide. When the street was altered, see *Quarterly Statement*, 1886, page 23, for the description in the last 8 lines: "The large displaced stones, represented by the heavy broken line opposite Frutiger's Bank, which were found when grading the street, would be on the line of the old wall beneath them." These stones formed, as it was plainly perceivable, the inside of the ancient wall, and was partly under the narrow (old) street. As the ancient wall was of considerable breadth, its western face certainly fell "*inside*," *i.e.*, towards west of the old boundary wall of the "open field" —but as the new building was put backwards, and the street made 5 feet wider, it fell nearer the edge of the new wall. The "Engineer," the mason, and others told me plainly, in the south, the *whole new wall stands on the old*, in the middle not fully the half, and in the north *nothing at all*—"not one inch," as the "Engineer" said—and accordingly, as I have seen the remains, consider the plan to be correct.

Finally, when my plan in 1887, page 217, does not agree with the one the "Engineer" had given to Dr. Merrill, this I can believe, and understand that I was not able to get also such a one from him, although it was promised to me repeatedly, but I was obliged to make my own, which every one may compare with its object.

The "*cistern*" spoken of in *Quarterly Statement*, 1888, page 16, I would not call it a "*large one*." It ends towards west, in about the middle of the (former) street, not going fully to the boundary wall at that time (*i.e.*, to the ancient wall), and its greater part extends eastwards under the building of the Joseph Sisters.

This I thought to be my duty to explain to the Palestine Exploration Fund.

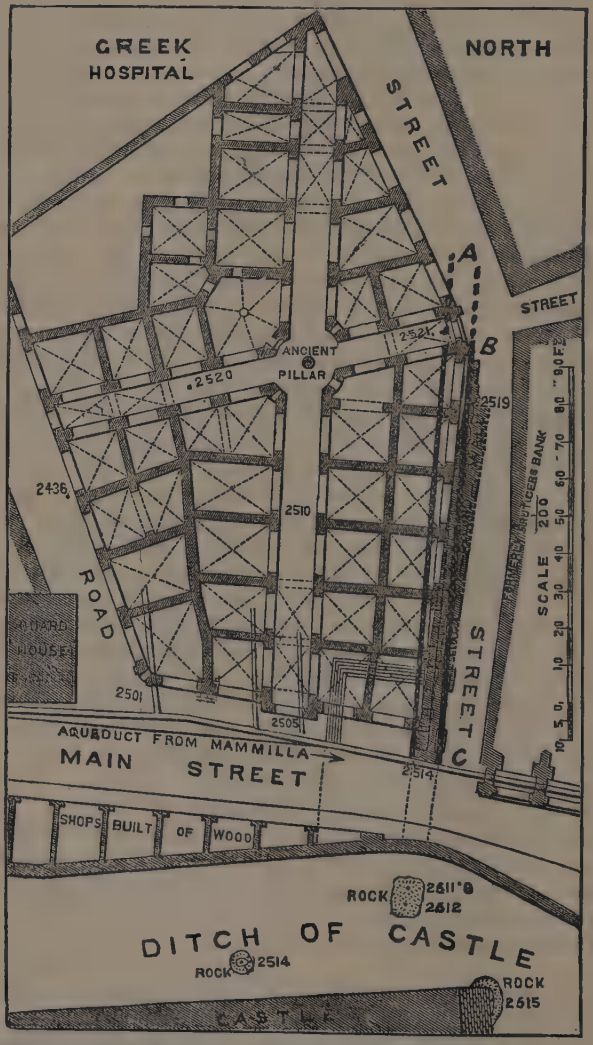
C. SCHICK.

II.

I have indicated on the inclosed plan, which you kindly sent me, the direction of the old wall according to my notes and observations. From C to B the line was nearly complete. From B to A it was broken.

Looking over my notes, and comparing them with the line which the engineer made (indicated in pencil lines on the inclosed plan) of the course

PLAN OF NEW BUILDING NEAR JAFFA GATE, SHOWING LINE OF SECOND WALL.



Thick black lines A, B, C, Dr. MERRILL. Thin lines with shading, HERR SCHICK.

The figures apply to the Rock levels, not the surface of the ground.

of the old wall, I am inclined to think that there may have been a slight angle at or near the point B, the wall beyond B, in the direction of A, turning to the left. If the question lies between Schick, Merrill, and the Engineer, I should say, were I appointed to decide upon it officially, that the Engineer's testimony should have the first consideration.

Selah Merrill.

Andover, Mass., U.S.A.

NOTES ON A JOURNEY FROM ISKANDERÛN TO TRIPOLI.

By Greville J. Chester, B.A.

(*Member of the Royal Archæological Institute.*)

On the 20th of November, 1886, I arrived by the Russian steamer at Iskanderûn, which, although an open roadstead, is, from its position, the only tolerably safe anchorage in Northern Syria. The small town of mean dwellings is beautifully situated under the steep but forest-clad range of Mount Amanus, which is an offshoot of the still higher mountains of the Cilician Taurus, whose towering heights are seen in the distance across the gulf. Iskanderûn is malarious and fever-stricken, on account of an undrained and pestilential marsh which festers immediately behind the houses of the town. Drainage would be easy, and would conduce enormously to the welfare of the place, which is almost uninhabitable in summer and early autumn; but the Turks are averse from improvements of any kind, so nothing is done.

In a wonderfully short space of time my excellent servant, Yusuf Basîl, of Beirût, had struck a bargain for two horses and a mule for the journey to Tripoli, and by 3 o'clock I was in the saddle. My muleteer, Mohammed, had never before been beyond Antioch.

Crossing the marshy plain, whose stagnant pools abound with fresh-water turtles, and their rushy banks with tree-frogs greener than the reeds to which they cling, I speedily reached the base of the mountain, up which a well-engineered road, constructed by a foreign company, winds on its way to Aleppo, and in three hours reached Beilân, a populous village of Christian Armenians, situated a little below the watershed. I found fair accommodation at a new Khân most picturesquely placed, its stone substructions being thrown across a rocky ravine, and supporting a wooden veranda, out of which the guest-chambers open. The view down the defile, with its precipitous rocky sides, to the tranquil gulf below, with the huge snow-capped mountains of Asia Minor, and in the neighbourhood of Tarsus, is beautiful in the extreme. Below the village the ravine is vocal with falling water, and is full of pomegranates and other fruit trees. The houses of Beilân are flat-roofed, with projecting wooden galleries, and are built in terraces one above the other. The village street

exhibits a condition of cleanliness and prosperity due to the superior civilisation of its Christian inhabitants, and is quite unlike that of a village of Muslim Turks.

Next morning I was off betimes, and in about an hour reached the top of the pass, some 1,600 feet above the sea. In places the road was well-nigh blocked by huge flocks of sheep, which, starting from vast distances inland, and changing conductors two and even three times, are led down to the coast at Iskanderûn for exportation. These animals travel slowly, being often several months upon the road, but they browse in passing where they will, and were all in fine condition. After passing the water-shed a splendid view inland bursts on the eye of the Bahr-el-Abyad, the White Sea, or Lake of Antioch, situated in a vast marshy plain, bounded by mountains of fine outline, and studded with lonely Tels, which mark the sites of unknown and long-buried towns. Shortly after passing the summit we left the high road to Halep, and turning to the right, passed across and along numerous wooded ravines which intersect and drain the southern slopes of Amanus. The autumn tints of the deciduous trees on the limestone formation were extremely fine, but the plain below was burnt up to a dusty brown, even to the very edge of the great lake. To the right are seen the imposing ruins of a crusading castle on a precipitous rock overhanging a ravine. This fortress, now called Kulat-el-Bagrâs, is said to be the Mansio Pangrios of the old itineraries, and the Pagræ of Strabo, and was one of the defences of "the Syrian Gates." Descending for about an hour from a point opposite this castle, we reached a small village of miserable huts, named Karamurt, situated on the verge of the plain, close to the ruins of a large and finely-constructed ancient Khân. While resting for a few minutes at a wretched wayside café, a boy brought me a handful of Roman-Colonial and Byzantine coins, but was prevented from selling them by a dirty and ragged Turkish soldier, who was collecting taxes, and probably intended to confiscate them to his own use. The track across the plain from this place sometimes follows the track of the old Roman road, paved portions of which exist in places, and sometimes diverges from it. The soil of the plain is of extraordinary richness, and vast quantities of liquorice spring up spontaneously. It is cultivated in part only by wandering hordes of Turkomâns, Bedoueen, and Kurds, and I passed two or three villages of immigrant Circassians. Asking the character of these people, I received the answer, "*They are very good people in the daytime!*"

On approaching the Orontes, a little above Antioch, whose ancient fortifications had long been in sight, I found it to be an eddying river of a milky-white colour. The stream is impeded by numerous dams and weirs, and huge wooden water-wheels continually turn with a creaking sound like that of a magnified Nubian sakieh, and raise water for the irrigation of the neighbouring orchards and gardens. One of these wheels at Antioch itself is close on a hundred feet in diameter!

The situation of Antâkia or Antioch is worthy of its ancient fame. The modern city occupies but a small corner portion of the ancient site at the

foot and on the lower slopes of Mount Silphius, and extends along the left bank of the Orontes, which is crossed by a single bridge. The ancient city ran high up the slopes of the mountain behind. The existing antiquities are strangely few. Earthquakes, and the still more destructive Turks, have combined to erase the noble features of the ancient capital of Syria, erewhile the second or third city of the Roman Empire. The streets and bazaars are mean and narrow, the centre being occupied by ditches, filled with black mud, dead cats, offal, and every kind of filth, beside which, like swine, the Turkish inhabitants take their pleasure. The bazaars, however, are well supplied with vegetables, and in places venerable plane trees overhang the streets. The lower portion of the city wall, near the river, which in part consists of large drafted stones, and the remains of a tower, seem to be of more ancient structure than the Roman and Byzantine fortifications above, and probably date from Seleucid times. It is harrowing to be obliged to speak of the walls of Antioch, once perhaps the most splendid and picturesque in the world, as monuments of the past. Originally they zigzagged up almost perpendicularly from the Orontes to the very top of Silphius, set thick with noble towers and bastions, some of which were no less than 60 feet in height. On the top the walls leap from rock to rock, crest huge precipices, and in one place stretch across a savage ravine, which they bridge over by means of vast substructions built up from the bottom to a height equal to that of the rest of their circuit. When perfect these walls enclosed a space of seven miles. Now, under Turkish auspices and Turkish rule, the whole of the walls on the slopes or face, as distinguished from the top of Silphius, with their towers and bastions, have altogether disappeared. Multitudes of the finest stones have been transported across the river, and appear as gravestones in the great Turkish cemetery ; others have gone to construct a modern barrack. In fact, every one who wants a stone for building or for a memorial of the dead, resorts to the walls, and, without let or hindrance from the authorities, carries off whatever he desires. So the work of destruction begun years ago is still going on, and ere long what might justly have been regarded as one of the wonders of the world will be matter of history only.

It is strange that Antioch is so seldom visited by European travellers, for the scenery is beautiful, and the city has the paramount interest pertaining to it, that it was there that "*the disciples were first called Christians*,"[1] and thence it was that the Apostles SS. Paul and Barnabas started on their first journey to evangelize the Gentiles.[2] Antioch was likewise the Bishopric held by S. Ignatius, afterwards martyred at Rome in the Colosseum under the Emperor Trajan.

It is very injurious to British interests and to the character of the English as a nation that, in a place like Antioch, the Consular Agency should be confided to a Jew, who is unable to speak a word of any European language.

[1] Acts xi, 26.

[2] Acts xiii, 1-4.

From Antioch I made a pleasant excursion to Beit-el-Ma, "the House of Water," the Daphne of the ancients. The path led at first along the left bank of the eddying Orontes, and then, turning to the left, I passed along lanes whose high banks of reddish soil, garnished with ferns and trailing creepers, had all the appearance of those of Devonshire. Emerging at length upon an upland plateau, I found the sequestered Beit-el-Ma at the head of a beautiful ravine at the foot of lofty limestone mountains. All remains of the ancient grandeur of Daphne have disappeared; not a vestige of temple or shrine now remains. But the place is one of singular loveliness and seems the very abode of peace. There is "water, water everywhere;" water bursting forth clear as crystal from and out of the rocks above; water racing in little rocky runnels under ancient plane trees and thickets of evergreens; water turning little corn-mills, so ridiculously small that they might seem to be the mills of pigmies; water dashing down in splashing falls, and joining its rills to form a rushing torrent, which foams away half-hidden in bowers of verdure at the bottom of a deep ravine. Around and about the mills I encountered a few Nusaireyeh men and boys in their picturesque garb, and of a personal beauty rarely seen elsewhere. These people do not live at the mills, but at a village about a couple of miles down stream.

The distance from Antâkia to Sueideyeh (Seleucia) can scarcely be more than 16 miles by the direct route—that, doubtless, which was taken by SS. Paul and Barnabas—but the course of the Orontes, which lies to the left of the track, winds to such an extent that its course is more than forty. The road is one of great beauty, passing through wild ravines along the base of the mountain called by the Macedonian Conquerors of the country Pieria, but now Jebel Musa, and crossing streamlets hurrying down to join the swift-rushing Orontes. When the highest point is reached and the corner of the mountain is turned, the sea bursts upon the view, with the mouth of the Orontes and the rich plain of Sueideyeh in the foreground. Off the mouth of the river, as I saw it, lay three large American ships of the United States, waiting for cargoes of liquorice, which is abundant upon this plain also, and which is largely used in the manufacture of tobacco. No town marks the sight of the once magnificent city of Pierian Seleucia, but a few houses and a Turkish custom-house stand a little above the mouth of the river, and the plain of Sueideyeh is dotted with a considerable number of cottages and houses of a better class, mostly embosomed in gardens of pomegranates and other fruit trees. In one of the best of these houses I was hospitably received by a beautiful and gracious lady, the wife of one Simon Panayôt, a Syrian gentleman of the Orthodox Greek Church, who is both a merchant and a cultivator of the soil. My host, who acts informally as agent under the British Flag, was absent on my arrival at the Goletta, but soon came home, and I had the advantage of his company when I rode to visit the remains of the ancient city about 3 miles distant, upon the steep scarp of Mount Pieria, and between it and the sea. These remains, which cover a tract some miles in circuit, are still of considerable

importance, and present a very picturesque appearance, being overhung and often overgrown with gnarled fig and other fruit trees. Overhead are steep and often precipitous rocks, some of which have evidently been artificially scarped. Everywhere they are perforated by innumerable tombs, some of vast size, and in addition to these I noticed many niches intended apparently for *ex votos*.

In some places are perched up huge stone sarcophagi, with wreaths, cupids, and other emblems sculptured upon their outer faces. Most of these have been rifled of their contents, but I saw at least two which are still intact. The remains of two of the city gates, of an amphitheatre, and of large and curious portions of the ancient fortifications can still be seen, and the ruins are everywhere strewn with broken columns, while in one place a headless statue of white marble still stands in its original position. In the low ground in front of the city are massive walls which now inclose a marsh, once the inner harbour of Seleucia. A canal, several hundred yards in length, now choked up, leads from this harbour to the sea ; it was originally protected by bastion towers, of which some vestiges exist. The entrance from the inner to the outer harbour is marked by two magnificent piers formed of vast stones clamped together with iron, of which the southernmost, 120 yards in length, is still in admirable preservation, and vies with any existing work of the kind. It was probably from one of these moles that the Apostle Paul stept on board the galley which was to convey him across to Cyprus.[1] The view from this spot is of extreme beauty and interest : the mountainous coast to the north, the sweep of mountains to the east and across the mouth of the Orontes, the stupendous limestone cone of Jebel Okra (Mount Casius), rising some 5,800 feet out of the blue waves of the Mediterranean—all these combine to form a picture never to be forgotten. Inland, to the north of the ancient harbour, is a wonderful series of galleries and tunnels cut in the solid limestone rock, and said to be 1,200 yards in length. They served the double purpose of supplying the city with water, and of carrying off the surplus water which accumulated at times in a rocky ravine, to the sea. The depth of these galleries reaches in places to 120 feet. This immense work would answer its purpose to the present day had not the Turks in sheer wantonness blown up the lower part of the excavation, and made a breach through which the water escapes and forms an unwholesome and malarious morass. Judicious digging on the site of Seleucia could not fail to be attended with the discovery of most interesting antiquities.

I rode back to Sueideyeh along the sandy beach which extends from the mouth of the harbour of Seleucia to the mouth of the Orontes, to a spit of sand, on which stands the chapel or wely of Mar Girgis, St. George. This small, whitewashed, domical building, although of Christian foundation, is much frequented by Nusaireyehs, who come from considerable distances inland to make their orisons, with a view to obtaining relief from various diseases. In like manner the Muslim

[1] Acts xiii, 4.

fellaheen of Central Egypt frequent the shrine of St. George, at Bibbeh, on the Nile.

I left Sueideyeh betimes in the morning, and was ferried across the Orontes near the Goletta, a little above its mouth, having engaged a young man to act as guide as far as Kesâb, on the further side of Jebel Okra. The path, if such it could be called, for it was often imperceptible led across a marsh at a little distance from the sea, near the supposed site of the ancient Nymphæum, and then under lofty and precipitous rocks of grey limestone, much perforated by caves, in one of which I was glad to take refuge with my little cavalcade during a tremendous shower of hail. From this point I gained the sea beach at an angle of the coast formed by the jutting forth of the immense mass of Jebel Okra, "the Naked Mountain," so called from the bareness of its towering cone. The maps of the Syria coast are most deceiving at this point, as they all of them give the impression that there is a tract between the mountain and the Mediterranean, whereas the very contrary of this is the fact.

Jebel Okra springs up out of the sea, and its steepness is so great that there is no track possible on that side, all passengers being compelled to make a long detour inland. The cone of this great mountain is to Northern Syria much what the cone of Hermon is to Southern Palestine, and from its more isolated position it is even more of a landmark than its more majestic rival. A path used by charcoal burners to convey their wares down to the sea side, leads up the side of the mountain at a point where, albeit it is covered with scrub, it looks from below all but perpendicular. It proved, moreover, so narrow, that my baggage was three times swept off the back of my sumpter-mule by rocks and stubby shrubs which impinged upon the track. This caused so much grumbling on the part of my surly muleteer, Mohammed, that I feared he would strike work altogether, and I thought it best to go on alone and leave him with my servant and guide to settle matters as best they might. I accordingly continued the ascent, holding on by my horse's mane as he clambered up the steep ascent like a cat. On gaining a level space some 1,500 feet above the sea, I waited for near an hour, enjoying the superb view until I was rejoined by my companions, whose voices I had long heard far beneath me. Below lay the pellucid blue sea, the mouth of the Orontes, the chapel of St. George on its spit of sand, the ruins of Seleucia, with Mount Pieria behind it, and beyond again the forest-clad mountains which line the coast towards Iskanderûm, the chain of Amanus closing the prospect. Truly a glorious view of a goodly land—a land which but for Turkish tyranny and misrule might be a very "garden of the Lord." I now made the discovery that my picturesque guide, who was armed with a rusty gun and a portentously long knife, knew absolutely nothing of the way, never having traversed it before. We accordingly strayed from the track until we reached an upland village of the Nusaireyeh, which, from the number of hewn stones and scarped rocks, I judged to be an ancient site. On regaining the path and passing the watershed of the shoulder of Jebel Okra, a

magnificent view presented itself, chiefly of forest-clad mountains, extending range behind range far as the eye could reach. Afar off, in a deep valley, could be descried the village of Urdeh, chiefly inhabited by Mohammedans. After resting an hour for lunch under a gnarled carob tree of great age and size, I commenced the descent on the Eastern slope of the mountain, and having passed a village on the left of the path exclusively tenanted by Muslims, I reached Kesâb an hour before sunset. Though I made several inquiries I failed to learn the site of the Temple of Ζευς Κασιος, where Julian the Apostate went from Antioch to offer sacrifice, but it seems unlikely that its remains have entirely disappeared.

The Christain Armenian village of Kesâb, which is also the name of a considerable surrounding district, is built amphitheatrically on the side of the Jebel facing inland; the flat-roofed dwellings with projecting galleries of wood rising one above another like those of Beilân, and commanding an exquisite view of mountains and of valleys winding amongst them. I found the place in some confusion, for the Turkish tax-gatherers had been all day in the village, and the irregular soldiers—hang-dog-looking ruffians enough — were making their accustomed extra requisitions of bread, fowls, and other provisions. The Armenian community of Kesâb has been settled there for about 300 years, and up to a few years ago had stuck to their ancient faith, and there was one flock under one shepherd, the whole brotherhood dwelling together in unity. This steadfastness, however, proved too much for the equanimity of the Romish and protestant missionaries, who are for ever seeking proselytes from those who hold more ancient forms of Christian belief, and thereby add another element of disunion to poor distracted Syria. Accordingly a "mission" of the so-called "Reformed Armenians," who acknowledge the supremacy of the Pope of Rome, was despatched to Kesâb, made converts and erected an opposition Church to the old one. Next the United States' protestant missionaries of Beirût appeared on the scene, preached the New England gospel, made more converts, and built a conventicle at the other end of the village. In addition to these, an Irish presbyterian missionary makes his *villegiatura* with his wife in this healthy village in the summer months, but I did not hear that he had succeeded in establishing a fresh sect of his own. The inhabitants of Kesâb are now torn up by the dissensions of rival religionists.

I started before sunrise next morning with an excellent Armenian, named Cippa, as my guide and guard, passing through very beautiful wooded scenery. The country hereabout on the borderland of two pashaliks is unsafe and has a bad name, and I was assured that the natives who have occasion to go from place to place seldom venture to travel alone. About two hours from Kesâb the geological formation changes from the mountain limestone to volcanic rocks, which often come to the surface in the shape of broken masses of weathered basalt resembling lava. The vegetation changes as if by magic. The deciduous trees of the limestone in their gorgeous autumnal livery of scarlet, flame, and canary colour, which never elsewhere had I seen equalled or even approached in

splendour, suddenly give place to the beautiful, but somewhat monotonous, Aleppo pines. After winding through several rocky and wooded defiles, and crossing several "hills of prey," the path ascends to the summit of a forest-clad mountain, from which a superb view is obtained, and which trends down and ends at the promontory of Ras Buseit, near the ancient Poseidion,[1] whose site is seen on the coast far below. Looking southwards from the summit of the pass, the giant form of Lebanon is visible towering up in the extreme distance ; while in the other direction the far-off mountains of Asia Minor can still be descried across the sea. A tolerably steep descent leads down into the Wady Kandeel, which I followed for many miles. This valley is cultivated by the inhabitants of several Nusaireyeh and Turkish villages, which appear perched up on the top of the whitish clay hills which bound it. The scenery hereabouts is comparatively tame and uninteresting, and seems especially so after the extreme beauty of Casius and its offshoots.

Rain was threatening, night falling, and my horses were knocked up when I was still far from Latikeyeh, my destination for the night, so I was obliged to ask shelter in the cottage of one of the Nusaireyeh in a tiny hamlet at a place to the left of the road, named Hirbeh. These strange people, as is well known, have an equal prejudice against Christians and Mohammedans, and I found Mohammed, my muleteer, who arrived first at the cottage while I was watering my horse at a spring, was already in the midst of a quarrel with the good man of the house ; who, on my coming up, peremptorily refused me hospitality. An old woman, however, came out and spoke up for me, and permission was at last given me to enter. From that moment nothing could exceed the kindness and courtesy of Ibrahim, my host, but it was touching to observe his astonishment when I paid for what milk, and fowls, and fodder I required. After my dinner I brewed a quantity of tea, which I dispensed in three tin mugs to five women seated on a kind of clay dais on my left, and to twenty-four men and boys who sat in a triple semicircle in front of me on the mud floor. The same extraordinary personal beauty which I had observed at Beit-el-Ma, was characteristic also of the community of Hirbeh. They complained bitterly of the tyranny of their Turkish masters, of the exorbitant and illegal taxes they were called upon to pay, and of the requisitions of cattle, sheep, and other produce made by the officials. What weighed upon them most, however, was the ruthless conscription from which, until lately, in consideration of the unorthodoxy of their religious tenets, they had, on payment of a tax, been exempt, under which boys and men from 15 or 16 to 50 were carried off and doomed to serve in the army of the sultan. The harmony of the evening was only once disturbed, and that was when it chanced to be mentioned that a small kitten had recently been brought from Latikeyeh ; whereupon my muleteer exclaimed, "Ah ! it was born a good Muslim kitten, and now it will be brought up a bad Nusaireyeh !" It needed a lavish distribution of loaf sugar to quell the hubbub which ensued.

[1] Herod. iii, 91.

It was with some difficulty that, being dead-tired, I succeeded in getting the single room of the cottage partially cleared, and was able to prepare to go to bed. I slept that night in the single room of the house in company with five men, one woman, one vocal infant of uncertain sex, twenty-six sheep, fifteen goats, cocks and hens galore, a donkey, and the afore-mentioned kitten, which slept peaceably enough at my feet. In addition to these a strange cat came in in the night and consumed the greater part of a chicken destined for my next morning's breakfast. There were no insects!

The road from Hirbeh to Latikeyeh lies along a plain, sometimes cultivated and sometimes overgrown with thickets of lentisk, and a white and purple-berried myrtle, at no great distance from the sea. A flat track near the sea, where the grey rock crops out on the surface, is perforated by numerous tombs.

Latikeyeh, originally a Phœnician town, but restored by Seleucus Nicator, and named after his mother Laodice, was within a few years a tolerably flourishing city. Now its trade has been almost stamped out by the exactions and tyranny of the Government, and it is rapidly falling into decay. I was the witness of a highly characteristic incident. Going into the bazaars I found almost every shop closed, and scarcely a human being could be seen in the streets. I knew it was not the Sunday of the Christians, nor the Saturday of the Jews, nor the Friday of the Mohammedans. At length I found an old crippled jeweller squatting in his stall, and learned the reason of the depopulation of the city. A road (which no one expected would ever be finished) had been projected to go from Latikeyeh to Hamath, and the Turkish Governor had ordered the entire male population, irrespective of age, health, strength, or capacity to work, to turn out upon it. Even those who offered to provide four able-bodied men to labour in their stead were not exempted. Of course, no one was paid for his services, with the natural result that next to nothing was done.

The ancient monuments of Latikeyeh consist only of a few columns of a temple, and of a curious arch of late Roman date, which exhibits some unusual sculptures of shields and arms. Bits of old masonry of huge stones are seen on the edge of the now deserted harbour, and near it are some fine stone warehouses, apparently belonging to the epoch of the Crusades. The venerable Priest of one of the Greek Churches brought for my inspection a superb MS. copy of the New Testament in Greek, for which a very high antiquity was claimed. There is no doubt that the Emperor of Russia offered for it the sum of 2,000*l*., but the Greek community unanimously refused to part with the precious volume. I do not profess to be a judge, but it did not seem to me that the book was of earlier date than the tenth century.[1]

[1] It is possible that this splendid MS. is of the Gospels only, but I unfortunately lost the book containing the whole of the memoranda taken during my entire journey. I must plead this excuse for the baldness and poverty of the present paper.

Leaving Latikeyeh, whose name is probably most familiar to those who know what is *good* tobacco, I forded one of the numerous Nahr-el-Kebîrs, and several other streams, and in five hours reached Jebeleh, the Gabala of the ancients, which gives its name to another splendid variety of the so-called "fragrant weed." This small town, or rather village, which with one single exception is entirely inhabited by Mohammedans, abounds in the remains of past ages, but is itself but a dirty and sorry place. At the northern entrance, near the fine old mosk of Sultan Ibrahim, who is buried within, and the crowded burying-ground, stand the grand ruins of a Roman theatre, whose vaulted passages must have rivalled those of the amphitheatre of Verona. Some of the huge stones of the old harbour may date even from Phœnician times, and the rock tombs are of very high antiquity. Broken columns and hewn stones lie about in every direction. Issuing forth from the walls of Jebeleh I saw the grand phenomenon of two perfect waterspouts, and several other imperfect ones hanging over the stormy sea. In about an hour I arrived at a small bay, near which, on its northern promontory, are the remains of ancient buildings with hewn stones lying about in great numbers. This place is called Tel Sukat. After fording several more streams, I came to another and much larger group of ruins, amongst which burrowed a few fever-stricken Christian inhabitants. It is called Baldeh, the Paltos of Strabo, and is situated on the top of low cliffs close to the sea, into which, hard by, flows a beautifully clear and rapid river named the Nahr-es-Sin, which is crossed by an ancient Arab bridge. At its mouth are the remains of an ancient harbour. To my surprise, my host at Banias, a Syrian of the Orthodox Church, informed me that this river derived its name from the French Crusaders, who call it the *Seine* in memory of their much-loved river in far-off France. In support of this apparently unlikely derivation, he cited the *fact* of certain villages near Latikeyeh being undoubtedly called after Saints of the Latin Church. On the other hand, the name of this river is supposed by some to be connected with that of the Sinites enumerated along with the Arkites and Arvadites in the Book of Genesis.[1]

The path onwards from Baldeh leads along the sea shore, and across the bay is seen towering up above the few buildings of modern Banias the stupendous castle of Markab, El Markab, "the Watch Tower," seated on a crag of basalt rising some twelve hundred feet above the sea.

Banias, the ancient Balanæa, although formerly a place of great importance and an episcopal see, has so much dwindled down that within a few years past it was entirely without inhabitants. It now consists of a few houses, which line the beach of a tiny bay, in the midst of which rises the new konak of the Turkish Caimacan of the district, who has removed his seat of government from the inconvenient site of Markab, and the quarters of his irregular soldiers. Behind the town there is a romantic rocky ravine with precipitous sides, through which a stream

[1] Genesis x, 17, 18.

finds its way to the sea. There is also a beautiful spring of fresh water, and the numerous walls, foundations, and rock tombs show the ancient importance of the place. I copied an ancient Greek inscription on a stone lying in front of the konak, but the transcript was lost in my note-book.

Next morning I started to visit Markab, sending my muleteer on with the baggage by the direct route along the coast. The ascent is very steep, and the climb a stiff one for man or horse. On the northern shoulder of the hill is a tolerably populous Turkish village in a beautiful situation. I had hoped and expected to find that the Castle of Markab was built on Phœnician, or, at all events, on Roman or Byzantine, foundations, but careful examination convinced me that the whole building is Gothic, of the period of the Crusades. Apart from its superb situation, the Castle of Markab must be almost without a rival. Carnarvon Castle, perched on the top of Penmaenmawr would scarcely equal it in grandeur. The Castle walls rise up from the black basaltic rocks, which in places are scarped to increase their apparent height. On the land side is a deep dry moat and numerous outworks. Vast subterraneous chambers with vaulted roofs were apparently used as stables. Within the walls is a fine first-pointed Gothic chapel, desecrated indeed and neglected, but still in good preservation, and used as a mosk by the few Mahommedans who continue to infest the ruins. The view from the battlements, of sea, winding shores, and distant mountains, is of indescribable beauty. Descending to the coast, I joined it at the mouth of a pretty ravine, on whose edge, overlooking the waves, stands a grand outlying Burj or tower, evidently, like the Castle above, of the Crusading epoch.

The route northwards from this point lies sometimes on, and at other times close to, the sea coast, which is commonly bordered by low rocks often perforated by tombs. Along the whole of this ancient and lonely coast, which once "echoed with the world's debate," the traveller has constantly to dive down into picturesque wadies and to ford streams half-blocked with oleanders and marged with venerable oriental planes. Scarce one of these valleys fails to show one or more arches of a grand old Roman bridge, and in some instances of one of Arab construction, but nothing appears of more modern times. It is the *rôle* of the Turk to blast, to destroy, to lay waste, not to originate or to restore. Of course, after rains, these rivers, which have their sources in the neighbouring hills, soon become impassable, and passengers prevented from crossing would be left in a country without means of obtaining either food or shelter.

After a long and tiring day I arrived at Tartûs (Antaradus), which, with Ruad (Arvad, Aradus), I have already described in the *Quarterly Statement*,[1] and after some difficulty managed to hire a small room on the top of a house belonging to a kind and courteous young Christian of the Greek Church.

[1] *Quarterly Statement*, October, 1875, p. 218.

I was at first disposed to think that the ancient cemeteries of Tartûs, the Isle of Ruad, and Umrît (Marathus) lay along the sea coast almost continuously from the southern gate of Tartûs to the southern end of the ruins of Umrît, there being, in addition, numerous chambered tombs cut in the rocks above the last-named place. Since, however, it appears that the Aradians were for long time at variance with their neighbours of Marathus on the main land, it is perhaps more likely that, at all events in later times, they would have been compelled to bury their dead, not immediately opposite their island fastness between Antaradus and Marathus, but at a considerably greater distance towards the north, viz., near their land port, Karne, or Karnos, which lies nearly a mile northwards of Tartûs, and still bears the name of Karnun,[1] and where rock tombs actually exist. Anyhow, the limited size of the Isle of Aradus would have rendered burials impossible within its circumscribed area. Excavations would probably determine this interesting point. It is worthy of note that, so far as I could ascertain, the massive bronze rings, apparently leglets, to some of which, in most inconvenient fashion, a second ring of bronze is attached, come from graves situated immediately opposite the island. These objects seem to belong to a very early period. The wealth of antiquities found in and about this neighbourhood is indeed surprising, and I know of no place in Syria where systematic excavations would be attended with more brilliant results.

Between Tartûs and Tripoli I witnessed a beautiful sight. The autumn rains had fallen, and the sand-hills near the sea, near the Eleutheru, or Nahr-el-Kebîr, at the "Entering in of Hamath," were covered with the black tents of the Bedawîn, who had come down from the interior to sow their grain, and who were seen far and near turning up the rich dark soil of the plain with their primitive ploughs, to which sorry little black oxen were attached. The day was sultry and thundery, and I encountered and followed for some distance along the flat ground an immense black snake, which could not have been less than ten feet in length. A little further on I saw a Bedawîn woman and her dusky imps stoning to death a small specimen of the same species. I should not have supposed from its appearance that this kind of serpent was poisonous, but my muleteer declared that it was so, and asserted that in the hot weather of summer it "stood on its tail," and with loud hisses struck at passengers who were unlucky enough to meet it. Near the Nahr-el-Bârid I struck into the new road which has been constructed by a foreign company, and leads from Tripoli to Homs.

From Tripoli I returned to Beirût by sea.

[1] *Cf.* Strabo, 753.

THE HITTITE LANGUAGE.

(1.) *Method of Study.*

Since the publication of Altaic Hieroglyphs, I have devoted time to the verification of the sounds proposed for Hittite words, by the aid of living languages, which serve to check the results of cuneiform study respecting the ancient Turanian languages of Western Asia. As the results have formed a lengthy MS., I propose to give an abstract of the more striking confirmations of the original thesis, which was to the effect that the Hittite language must have belonged to the same group to which the Akkadian, Susian, and Medic—the old Turanian tongues of Chaldea and Media—belong.

It appears to be now admitted that the Hittites were a Tartar people, and their language should therefore belong to the Turko-Tartar group. The Medic is pretty generally admitted to have been nearest to this group, but the Akkadian has generally been thought to be nearer to the Finnic languages. Lenormant, however, found that Akkadian grammar (especially that of the verb) was nearest to the Manchu-Tartar, which represents a very archaic condition of speech ; and he also considered that the Ugrian languages were nearer than the Finnic to Akkadian. The geographical position of Chaldea would render this natural, and the fact that the Akkadian numerals are nearer to the Turkish and to the Tartar is another important consideration. After having compared nearly 400 Akkadian words with Tartar and Finnic roots, it seems to me clear that the Tartar are usually nearest to the Akkadian. I find also that out of about 220 known Medic words 60 or 70 are radically connected with Akkadian words, so that if Medic be regarded as a Turko-Tartar language, the older Akkadian belonging to a period when the various branches of Turanian speech were perhaps less distinguishable, should also probably be classed as Turko-Tartar. In modern Turkish I find nearly 200 words which may be compared very closely with Akkadian. Some of these are dissyllables like *beuluk* (Akkad. *Bulug*), "division ;" or *Aka* and *Agha* (Akkad. *Aga*), "prince." But *Guiœuk* (Akkadian *Guk*), "blue ;" *Pala* (Akkad. *Pal*), "sword ;" *Ak* (Akkadian *Ak*), "white ;" and the rest represent the more numerous class of ancient monosyllabic words common to Chinese, Mongol, and Tartar languages.

Taking for comparison the dead languages, Akkadian, Medic, Susian, and the dialect of Malamir, I have only accepted for use as a rule words common to two or more of these dialects. Among living languages I have placed first the Turko-Tartar dialects, second the Ugrian, and third the Finnic. I have also given attention to the Etruscan language, of which about 250 words are known, and which is comparable on the one side with Basque and with Ugro-Finnic speech, and on the other with Akkadian. Mongol and Chinese words are also in some cases valuable for comparison. As regards grammatical construction I have studied

the Akkadian, Medic, Susian, and Etruscan, and among living languages the Turkish, Hungarian, and Basque. It appears to me, therefore, that any objection that might be raised to the exclusive use of Akkadian for purposes of comparison will not apply to the present enquiry.

As regards the sources of information respecting the Hittite language, they consist in (1) the names of 30 Hittite Kings ; (2) the names of 200 Hittite towns ; (3) the sounds recoverable through the Cypriote and other syllabaries as belonging to symbols on the monuments of Syria and Asia Minor. The fact that the Hittite language is comparable to the dialects of Asia Minor, Cappadocia, and the Vannic region, has long been regarded as probable. In many striking instances the royal names of tribes in these regions are comparable with both Akkadian, Medic, and Turko-Tartar words of suitable meaning, and while I believe that the name Hittite should be confined to one tribe dwelling in Northern Syria, it seems to me clear that the Canaanites (especially in the north) belonged to the same stock with the Medes and Akkadians, and with the Asia Minor tribes who afterwards spread to Greece and to Italy.

(2.) *Royal Names.*

As regards the royal names, there are several words which recur in these names and which are very distinctive of Turko-Tartar speech. Of these the most important, perhaps, is that occurring in the forms Tarka, Tarku, Tarkon, and Tarkhu. Thus we have—

Tarka tasas,	King of	the Hittites.
Tarka nanas,	,,	,,
Tarku timme,	,,	Erme.
Tarkon dimotos,	,,	Cilicia.
Tarkhu lara,	,,	Gamgami.
Tarkhu nazi,	,,	Milid.

This word is known in the Etruscan names Tarkon, Tarchu, Tarchnas, Tarcnal, Tarchi, Tarcna (Dennis, "Etruria," ii, pp. 41, 44, 102), and is familiar to us as Tarquin. It is a regular Tartar word for "chief," as in the Uigur *Tarkhan* and Tschuwash *Targan* or *Torgan* (Vambery, Root 182, p. 170), and is used as *Tarkhan* in Siberian (Taylor, "Etruscan Res.," p. 79). Vambery would render it "chief of the tribe," from *Tar* or *Tur*, "tribe," and *Kha* or *Khan*, "chief."

The word Tar or Tur, however, itself means chief. It seems to occur in the names—

Tartisebu,	King of	the	Hittites.
Tatar,	,,	,,	,,
Totar	,,	,,	,,
Motur	,,	,,	,,

It is indeed a very widely spread Turanian term, recognisable, according

to Vambery, in the names Tartar and Turk and the Uigur *Töre*, "prince" (Vambery, Root 197, p. 184), with the radical meaning of "foremost." In Akkadian *Dur* means "chief," and in Medic it is *Tar*. To the same root the word *Tara* or *Dara*, for "God," is probably to be ascribed, as in the Esthonian *Tara* and the Ostiac and Wogul *torüm*, "heaven." The names of Tar and Tarku, deities of Asia Minor, the Akkadian Istar (Ashtoreth), the name Dara for the God Ea, and Dar for the God Asshur, may be compared with the Finnic *Tara* (*see* Donner, i, p. 127), for "God," and with the Etruscan Turan for the dawn goddess ("Etr. Res.," p. 134). There was a Hittite goddess called Antarta, or Astarta. In modern Turkish دارا (*dara*) means "a prince."[1] In Tschuwash *Tora* is "God."

Connected with this word is the word Sar, which occurs in the names—

Sap sar, King of the Hittites,
Maurasar, „ „ „
Kauisira, „ „ „
Khetasar, „ „ „
Sarduris, „ „ Van,

and many others. This word, though used in Semitic languages to mean "chief," can hardly be regarded as Semitic in the Hittite names, being affixed and not prefixed. In Egypt the word *Sar*, for chief, is traced back to the times of the ancient empire before the Semitic invasion ("Pierret, Vocab.," p. 515). It is used in Akkadian for "chief," and is represented by the modern title of Tzar or Czar, in Russia. It may be compared with the Samoyedic *Jeru*, "lord" (j and r being interchangeable in these languages), and with the Etruscan *Lar* (l and r being interchangeable). The form *lar* seems to occur in the name of the Gamgam chief, Tarkhulara. In Turko-Tartar dialects *Sar* or *Ser* means "strong" (Vambery, p. 145). In Finnic speech *Ser* and *Sur* mean "high" and "great." Like the preceding words Sar appears, therefore, to be a widely-spread Tartar or Altaic word for a person of dignity and power.

The word Lel or Lul also seems to be recognisable in the names—

Sap lel, King of the Hittites.
Sapa lului, „ „ Patinai.
Lalli, „ Milid.

This may be compared with the Akkadian *Lul* or *Lil*, "king," *Lala*, "ruler." The Hunns called their chiefs *Luli* ("Etr. Res.," p. 323), and since the word Sap means apparently a soldier (from the Tartar root *Sap*, "to strike" or "cleave"—Vambery, No. 153, p. 142—also found in Finnic, Donner, ii, p. 100 — and in the Akkadian *Zab*, "soldier," *Sapar*,

[1] There is another widely-spread word, *Tur*, for "son," and another *Tur*, for "camp."

"sword," and the Medic *Sabarrak*, "war"), it would appear that Saplel means "warrior king."

Another word which seems closely to connect the Hittite and the Akkadian is the name Ispu or Esebu. It occurs in the cases of—

Tartisebu, King of the Hittites.
Akitisebu, „ „ „
Ispuinis, „ Van.

In Akkadian *Issep* or *Essebu* signifies "prince;" *Sib* also means "king" and "shepherd;" and *Sibir* means "harvest." These words seem to be explained by the Tartar root *Sab*, *Sjib*, *jip*, *jüp* (Vambery, No. 37, p. 35), meaning "to gather" or "bind," while in Finnic *Sap* means "to squeeze" (Donner, ii, p. 62). Thus the shepherd (*Sib*) is the gatherer, the king is he who gathers people like sheep, the harvest is the gathering of corn.

Other tolerably clear Tartar words recognisable in Hittite royal names are (1) Aka, "prince"—Akkadian *Aga*, Turkish *Aka* or *Agha*, Uigur *ige*, Cagataish *ege*, Jakut *icci*. (2) Ir, "man"—Akkadian *Eri*, Manchu *Eri*, Turkish ار, *er*, Tschuwash *ar*. In Magyar *ur* means "lord;" in Medic *Ersa* is "great." (3) Kal, "strong," "big"—Akkadian *gal*, Susian *Khal*, Turko-Tartar *Khal*, *Khil*, *Kkol* (Vambery, No. 72, p. 67). (4) Lab, "brave"—Akkadian *Lab*, *Lib*, Susian *Libak*, Turko-Tartar *Lap* or *Lab*, "strong" (Vambery, No. 131, p. 120), Turkish الب, *alb*, "brave." (5) Nazi, "prince," as in Susian and Akkadian. (6) Bakh, "king"—Akkadian *Pakh*, Turko-Tartar *Baj*, *Big*, *Bik*, "prince" (Vambery, No. 205, p. 194,) Turkish بك, *bek*, "chief" بك *pek* "strong." (7) Pas, "chief"—Turko-Tartar *bas*, *bash*, *pash*, "chief" (Vambery, p. 195), Turkish پاشا *pasha*. (8) Sun, "majestic"—Turkish صان, *san*, "dignity," Medic *sanu*, "powerful," *Sunku*, "ruler," Susian *Sunkik*, Malamir *Sunkip*, all from the same root. These, with a few others, enable us to translate nearly all the Hittite royal names in an appropriate manner.

It is to be noticed that these proper names often end in s, which was thus probably a personal suffix, as for instance, Pais, Kalbatus, Samaritas, Kamais, Tarkatasas, Tarkananas, Zuazas. The Cassite proper names, and a good many Akkadian proper names, have the same ending in s, as have many names from Asia Minor. The same termination occurs in Etruscan (*e.g.*, Truials, "a Trojan," Huins, "a Hunn," &c.). In Akkadian we have the word *Sa*, "man," which is perhaps the root whence the third person singular in s, common to many Ugric and Turkic languages, is derived. In Hungarian (Singer, "Hung. Lang.," p. 84) *es* is a suffix for the agent. The termination in s thus agrees with the fourteen words above mentioned in indicating very clearly the Turanian and Tartar derivation of the Hittite proper names for chiefs.

(3.) *Town Names.*

The geographical lists of the Temple of Karnak furnish a yet larger number of non-Semitic names in the Hittite country for analysis. There are difficulties in treating this list since some of the names are pretty certainly Semitic, while in some cases the transliteration is doubtful and in others the name is defaced. A comparative study, however, enables us to recognise certain Tartar roots in this nomenclature, and it has long been the opinion of competent scholars that the language represented by the town names of Northern Syria was neither Semitic nor Aryan, but presented (as do the personal names) the preposition of the defining word which distinguishes Turanian tongues.

1. Perhaps the best instance occurs in the case of the root *ab* or *eb*, as in the names—

Terab.	Rutub.	Tatup.
Nautab.	Papab.	Letep.
Nirab.	Kharab.	Ganiab.

In these cases the word seems clearly a suffix, or the defined word to which a defining word is prefixed. It may be compared with the Akkadian *ab*, "abode," and *ub*, *ib*, "region;" the Medic *up*, "city" (Lenormant); and the Chinese *ip*, "region." In Turko-Tartar dialects *eb* and *ev* signify "a house," from a root meaning "hollow" (Vambery, No. 47, p. 43), and this is connected with the Turkish اُو, *ev*, "house."

2. A cognate word Ai occurs in the names—

Aai.	Aiberi.	Aaitua.
Unai.	Khataai.	

This might be the Akkadian *Ai*, "mound," *E*, "house;" Medic *E*, "house" (Oppert, "Les Medes," p. 243); Malamir *E*, "temple" (Sayce, "Malamir," p. 103). In Turko-Tartar languages *oj*, *öj*, *ov*, *ev* mean "house." In Finnic languages *au*, *av*, *ou*, *oi* means "to excavate," having the same radical meaning as the Akkadian *E*, originally meaning a "hollow place," "cave," or "lair" (*see* Donner, ii, p. 91). From this root the name of Ai (Josh. vii, 2–5, Jer. xlix, 3) appears to be derived.

3. Another apparent root is Ara or Ari, as in—

Aari.	Aresa.
Aares.	Arinir.

This may be the Akkadian *Ari*, "flow," *Aria*, "river." In Turko-Tartar we find *Ir*, *ür*, *er*, "to flow" or "melt" (Vambery, No. 45, p. 42), whence the Yakut *ürak*, "stream." In Hungarian *ar* means "stream" (Donner, i, p. 104), and in Basque *ur*, *ura*, is "water." In Turkish ايرمك, *irmak* is "river."

4. Though only twice found, the root Atr is very distinctive, as in—

Atriten.	Aternu.

In Etruscan the word *Atrium* is derived from this root, which is the Turko-Tartar *Tur*, "abide" (Vambery, p. 185); Esthonian *tare*, "hall;" Magyar *ter* (Donner, i, p. 135). In Akkadian *Tir* is rendered "seat."

5. The root Un, or Aun, appears in the names—

Unai.	Aunuka.
Unpili.	

With these we may compare the Akkadian *un*, *unu*, *unug*, "city;" the Turkic *in*, Tcherkes *unneh*, Wogul *ion*, Etruscan *on*, "city" ("Etr. Res.," p. 348). In Finnish *huone*, in Esthonian *hōne*, in Lapp *huona*, in Hungarian *hon*, signify "house" or "home" (Donner, i, p. 95). This seems to be the Medic *ummanni*, Susian *umman*, "house" (Oppert, "Les Medes," p. 244).

6. The Egyptians not distinguishing l and r, it is doubtful if the next root should be aul or aur, aal or aar. Compare—

Aarzakana.	Aarnir (thrice).
Aurpalna.	Aripenekha.
Aarta.	Aurma (twice).

In Akkadian *ur*, *urra*, means "foundation;" *uru*, *eri*, or *alu*, is "city." The Cagataish *orun* means "place" (Vambery, p. 57); Turk اوروِ *œuru*, "enclosure." In the Tartar dialects l and r are sometimes interchanged. *Aul* is a common Tartar word for "camp;" Tscheremiss *ula*, *ola*, "town;" Mongol *ordu* "camp;" Khitan *woolutu*, Turkish آولو *aulu*, "courtyard;" Etruscan *Vol*, *Vel*, "town" or "settlement" (Taylor, "Etr. Res.," p. 346).

7. The root Ben or Ban is also clear in the words—

Anaubenu.	Sesban.
Atabana.	Aripenekha

It is, perhaps, to be compared with the Etruscan *phanu*, a "fane;" or with the Akkadian *pin*, "foundation," *apin*, "city;" Chinese *pin*, "settlement."

8. The root Beg, Bug, or Puk occurs in the words—

Sutekh-bek.	Pukiu.
Suki-beki.	

As the first of these words seems to contain the name of Sutekh or Set—a Hittite deity—Bek may mean a "shrine," like the Akkadian *ubigi* and the Malamir *bukti* (Sayce, "Malamir," p. 81). But, as already noted, the

Tartar root *Bek* means "strong," whence the Uigur *bekük*, "a fortress," and this may be the true meaning of the Akkadian and Malamir words.

9. The root Kan or Gan occurs as a prefix in two names, and suffixed two others—

Tepkenna.	Ganiab (or Kainab).
Shauraganna.	Kaniretu.

In Akkadian *gan*, *gin*, *gun*, *gina*, signifies "enclosure," perhaps the Tartar *jan*, "wall" (Vambery, p. 112). It recalls the Semitic word for "garden," but where suffixed can hardly be a Semitic word.

10. The word Kar, "fortress," is also recognisable in the names—

Atakar.	Karkamasha.
Karmata.	Tsatsakar.

In Akkadian *Kar*, *Kir*, *Khir*, *Gar*, or *Khar* is rendered "fortress" or "enclosure;" Mongol *Hur*, "enclosure;" Etruscan *Cære*, "town." The Turko-Tartar *Khar*, *Khor*, *Kür*, *Gür*, mean "to surround" (Vambery, No. 86, p. 81). The Finnic *Kar*, *Ker*, *Kir*, *Kor*, means "round" (Donner, i, p. 48). In Wotiak and Zirianian *Kar* means "town."

11. The word Aker, perhaps from the same root, occurs in—

Akershaua.

This recalls the Lapp *Aker* and Etruscan *Ager* for a "field" or "enclosure" ("Etr. Res.," p. 333).

12. The root Khar or Khal is probably connected with the two last. It occurs in—

Khalka or Khalukka (Chalchis).
Khalres or Khallis (Killis or Kharis).

It is perhaps to be compared with *Khal*, "town," as in Medic, Susian, and the Malamir dialects (Sayce, "Malamir," p. 105).

13. The word Kur occurs in Tamakur; Akkadian *Kur*, Malamir *Kurkha*, "mountain" (Sayce, "Malamir," p. 104); Basque *Kora*, "high;" Lapp *Kor*, "mountain;" Esthonian *Körge*, "high;" Tscheremiss *Korok*, Votiak *Gurez*, Permian *Keros*, "mountain." (Donner, i, pp. 35, 36.)

14. The syllable *Ma* occurs in—

Aama.	Mauraka.
Khatuma.	Mauthi.
Letama.	Mashaua.
Aurma.	Akama.

Lenormant ("Magic," Engl. Ed., p. 272) says that *Ma* joined to a town name means the region near a town. Lenormant and Delitszch give *Ma* as an Akkadian word for "country." Mr. Pinches informs me that it is a rare word. In Finnish *Maa*, in Vogul *Ma*, in Zirianian *Mu*, signify "country."

15. The word *Mur* occurs in—

Murlakhna.
Kamurupa (?).

Compare the Akkadian *Muru* and *Murub*, "city."

16. *Pil* or *Pir* is recognisable in—

Piltau.
Aunpili.
Aubillina.

This is probably the Ostiak *Pel*, Andi *pil*, Mongol *Boldek*, Etruscan *Falœ* "mountain" ("Etr. Res.," p. 330). In Samoyedic *filoio* means "high."

17. The root *Su* seems to occur in—

Buresu.
Tsaresu.
Tariunsu.

This is no doubt the Tartar *Su*, "water" (Vambery, No. 167, p. 154), as in the Tschuwash *Su*, "stream;" Turkish صو, *Su*, "river" or "water." The same root occurs also in Finnic languages (Donner, i, pp. 100, 157).

18. Ta as a suffix is recognisable in—

Tarita.	Abta.
Aarta.	Abata.

It may be merely a grammatical form like the Medic *ta*, Akkadian *da*, forming abstracts; but Ta is a widely spread Turanian word for "mountain," occurring as a suffix in names like Altai, Aktu, &c. In Etruscan it appears as *Te* ("Etr. Res.," p. 346); in Turkish as *Dagh* داغ. In Ostiak *tei* means "a peak" (Donner, i, p. 161).

19. Tama, a distinctive Tartar word, occurs in—

Tamakua.
Aatatama.
Tamakur.

In Khitan and Manchu *tama* means "enclosure" ("J. R. A. S.," xiii, ii, p. 124). In Cagataish *tam*, *tim*, is "a building" (Vambery, No. 179, p. 166). In Akkadian *Tami* is translated "shrine," or "building."

20. The root Tar seems clearly traceable in—

Tarebu.	Tarita.
Tariunsu.	Tarekh.

This is a common Tartar word for "narrow" or "gathering" (Vambery, p. 169). Compare the Turkish درہ *dereh*, "valley."

21. The word Tep occurs probably in—

Tepkenna.

This is probably the Altaic *töbe*, Tchuwash *tübe*, "hill" (Vambery, No. 192, p. 178). Turkish تپه, *tepe*, "hill." It is also found in the Finnish *tüppüra*, *tüpäle*, "a hill" (Donner, i, p. 150); and in the Mongol *dobo*, and Etruscan *Tepæ* ("Etr. Res.," p. 330).

22. Tur or Tul is probably to be found in—

Turmanna or Tulmanna.
Turbanda or Tulbanda.

In Akkadian we find *Tul*, "mound;" Hunnic *Teulo*, Etruscan *Tul*, "tumulus" ("Etr. Res," p. 211); but if the word be *Tur* (which is equally probable) we must compare the Akkadian *Tur*, "abode," and the common Tartar and Turkish root *Tur*, "to dwell," whence the Turkish طورمق *dourmak*, "dwell," and the Siberian, Mongol, Tartar, and Samoyedic *tura*, "tent" ("Etr. Res.," pp. 23, 344). In Finnic the word *tur*, "tribe," is no doubt connected (Donner, i, p. 130), and perhaps the Esthonian *tare*, "abode" (p. 135).

These roots are not peculiar to Hittite, nor do they exhaust the possible Tartar words recognisable in the list in question. The words *Kur*, *Gan*, *Ater*, and many yet more suggestive (*Palanda*, *Atarna*, *Arna*, *Perk*, *Gurus*, &c., &c.), recur again and again in the names of cities in Asia Minor, in Etruria, and even in Iberian Spain, wherever the Tartar stock to which the Hittites belonged, spread itself throughout Western Asia and Southern Europe. (*See* Hyde Clarke, "Inhabitants of Asia Minor," 1865.)

(4.) *Grammar.*

Before proceeding further, it is necessary to consider for a few moments the probable grammar of the Hittite language, by aid of the hints obtainable from the preceding lists, and through a comparative study of the grammars of Tartar, Ugric, and ancient Turanian languages. Languages and writing grow together. The earliest stage, in which grammar hardly existed, would be expressed by picture writing. Agglutinative languages can be expressed by hieroglyphics, but this is not the case with inflected languages, which require syllabaries, and which are best expressed by the alphabet. Thus a hieroglyphic system belongs to an agglutinative language; and to such an agglutinative tongue the hieroglyphics of Syria and Asia Minor are properly ascribed.

The most distinctive features of Turanian speech are: 1st. Agglutination, or the absence of inflexion. 2nd. Post-positions, or the placing of the root before its agglutinated syllables (though this is not an invariable rule). 3rd. Vowel harmony in derivatives, the weak root or agglutinated syllable agreeing in vowel sound with the noun-verb root. This does not

apply, as a rule, to compound words. In Medic such harmony is suggested by Oppert ("Les Medes," p. 39), and in Akkadian it is clearly visible in the pronouns and post-positions (*see* Bertin, "L'Incorporation Verbale"). 4th. The distinctions of sound are much less precise in Turanian than in Semitic languages. Thus in Medic, Oppert only recognises eleven consonantal sounds, while, in the Tartar languages and in Basque, the interchangeability of various letters is equally remarkable. The peculiarities of the Cypriote syllabary seem to show that the sounds of vowels and consonants were also indefinite in Hittite.

The Medic and Akkadian differ in syntax from the living Turanian languages. The arrangement of the sentence, the position of the pronouns, and one or two other important particulars, show this difference; but the ancient and living languages agree in many equally important particulars, such as the position of the plural, the placing of the verb at the end of the phrase, and the use of post-positions.

In Akkadian, Sumerian, and Medic the order of the sentence is *object+subject+verb*, whereas in Turkish it is *subject+object+verb*. In the more certainly understood Etruscan texts the ancient order seems to be observed. In Hungarian the rule is very variable (Singer, "Hungarian Language," p. 87). In Basque the order is the same as in Turkish (Van Eys, "Basque Language," p. 49).

The use of "packets" in Akkadian, or, in other words, the rule that only the last word in an enumeration takes the case suffix is observable in Basque (Van Eys, p. 45), and it survives to a certain extent also in Turkish (Redhouse, "Turkish Language," p. 165).

The arrangement whereby the defining word (such as the genitive) precedes the defined word, is a distinctive mark of Turanian speech, but in the ancient languages the rule is not inflexible. In Akkadian we find the genitive both preceding and following, and the genitive affix is in the first case omitted, but added to the genitive when it follows (*e.g.*, *Ma-ir*, "city of the ship;" *Damkina*, "woman of the earth," &c.). In Medic, also, it is found that the genitive may follow or precede, and when it follows, the genitive suffix is attached to it (Oppert, "Les Medes," p. 106). In Turkish there are four possible arrangements. The genitive with its suffix sometimes precedes (Redhouse, p. 163), and this is also the case in Basque (Van Eys, p. 46).

In Tcheremiss the genitive, without case affix, precedes its nominative, as in Medic. In Votiac it is placed indifferently before or after ("Magic," Engl. Ed., pp. 284, 285). In Hungarian the prefixed genitive without mark of case also occurs (Singer, p. 10).

In Hittite the genitive appears in some cases to precede without any case suffix (*see Kheta-sar*, "Chief of the Hittites;" *Khataai*, "House of the Hittites;" *Sutekh-bek*, "Shrine of Sutekh"). In other cases it seems to follow (as is clear from the bilingual boss), which may lead us to render *Aurpalna*, "City of the Chief;" *Turmanna*, "Camp of the King," the final *na* being the case suffix. In the cases *Tartisebu* and *Akitisebu*, the prefixed word appears to have an affixed particle, *ta* or *t*, which is

either a case ending or the sign of the abstract (*ta* in Medic, *da* in Akkadian).

The position of the adjective is also very variable in the languages under consideration.

In Medic the adjective follows its noun, but in the earlier Akkadian it appears sometimes to have preceded it. In Chinese the adjective precedes the noun (Max Müller, "Science of Language," 5th edition, p. 122), and Lenormant regards this as the more ancient Turanian structure. In Turkish all the adjectives precede the noun and remain uninflected (Redhouse, p. 68). In Basque, on the contrary, the adjective follows, and Lenormant has pointed out ("Magie," French Edition) that this archaic language much resembles Akkadian in structure. In Hungarian the adjective may follow or precede, but when preceding remains invariable (Singer, p. 26). Judging from the words *Gallu* and *Lugal*, it would seem that the prefixed adjective may also have occurred in Akkadian. The signs *a* and *ga*, and *li*, are adjective affixes in Akkadian, and in some living tongues, when the adjective follows the noun.

The lists under consideration seem to show that in Hittite, as in Hungarian, both positions are possible for the adjective. Khalukka may mean "great town" (*ukka*, "great"), but Galbatus might mean "great ruler" (*gal*, "big"); Aunpili, "mountain town," may present an adjective, *pili* from *pil*, "a hill." Tamakua, "lofty building;" Lalli ("princely") and Tarkhulara are other possible instances of Hittite adjectives. When preceding the noun, we see, from what has been said above, that the adjective would probably present no affix, but consist simply of the root.

Gender, properly speaking, does not exist in the languages to be considered. Even the pronouns have no gender in Akkadian or in Turkish. There is no gender in Basque, Hungarian, or Turkish, or in Akkadian or Medic. The sex may be distiuguished, in some cases, by a prefix, like the Hungarian male prefix (Singer, p. 82) for animals, or the Turkish female prefix *dishi* (Redhouse, p. 51). In Akkadian there appears to have been a male affix (*e.g.*, *lu-nit*, "sheep-male"), like the Hungarian female affix *ne* ("wife").

The position of the plural is the same in the ancient and in the living languages, but the words used for plurals are very various. In Medic the plural affixed to the root precedes the case suffix (*Ain-ip-irra* "of the Kings"), and the same order occurs in Hungarian and in Turkish (*see* Sayce, "Malamir," p. 72, Singer, p. 14, Redhouse, p. 51). I believe that this was clearly the case also in Hittite (see the second word on the first Hamath stone when the plural precedes the termination *li*).

The position of the verb at the end of the sentence distinguishes the languages under consideration from the Semitic and from the Egyptian.

The root, properly speaking, appears to be the imperative, as in Turkish, and the noun may be either the root or may take an affix, such as *Ak*, *Pi*, *Es*, representing the agent or distinguishing the case. From one point of view there is no true verb in the ancient languages, and the

tense is said by some scholars not to be distinguished in Akkadian. In Basque the past tense is distinguished by an affixed *n* and the infinitive is unknown (Van Eys, p. 47). In the earlier languages the passive is represented by the auxiliary *du*, "come" or "become" (literally "go," as in many early languages—Max Müller, "Science of Lang.," 5th ed., p. 339), and the active by *ma*, "be." The auxiliary, with these exceptions, precedes the verb in Akkadian, which is not the case in the later living languages. A reduplication of the root is said by Max Müller to be frequently used for the past. Such re-duplication occurs in Akkadian (*e.g.*, *gamgam*, *dudu*, &c.), but does not seem to have been recognised as a mark of tense. The adverb and the adjective are the same in Turkish (Redhouse, p. 73), and were no doubt indistinguishable in the ancient languages. The periphrastic construction, which Lenormant considered a striking peculiarity of Akkadian ("Magic," Engl. Ed., p. 278), occurs in other languages of Turanian origin, as, for instance, in the Basque (Van Eys, p. 34).

The syntax of the verb and the positions of the pronouns are of special importance to our enquiry.

In the more modern languages the verb is conjugated, the personal suffix following the root, but in the ancient Akkadian this is not the case. The pronoun there precedes the root, just as it does in Basque, without personal suffix. Lenormant remarks that the old structure, with a simple verb root, preceded by the governing pronoun, still exists in Mongolic and in the Manchu-Tartar.[1] In Chinese, also, the governing pronoun precedes ("Magic," Engl. Ed., p. 285).

In Medic, we find the order of the transitive verb to be governing pronoun + governed pronoun + verb (*U-ir-halpiya*, "I him killed"), which is the same as in Akkadian. In Basque the order would be "him killed I," and in Turkish "I him killed-I." In Etruscan the order is not so clear, but appears to have been "him I killed." In Hittite we may expect the pronoun to precede the simple verb root, and the governing pronoun probably preceded the governed, as in Akkadian or Medic.

The pronouns are very constant parts of speech in these languages. Being originally nouns the words came with the advance of language to be used as demonstratives, and then specialised as pronouns. M. Bertin has shown this in the case of Akkadian ("L'Incorporation Verbale"), and it is also noted in Medic and in Basque (Van Eys, p. 16). The possessive pronoun is affixed to the noun in Akkadian and in Medic, just as in Turkish, in Hungarian, or in Basque.

The position of the numeral is very constant. It precedes the noun, and the ordinal, &c., are distinguished from the cardinal by affixes.

The use of post-positions instead of prepositions is one of the distinctive features of the languages under consideration. These words, as will

[1] Dr. Oppert conjugates the Medic verb. Dr. Sayce disputes this ("Malamir," p. 77). The Basque retains the old structure in the intransitive verb, which has no personal suffix (Van Eys, p. 31).

appear later, are wonderfully constant in the various languages. There are, however, certain preposed syllables (such as *gik* and *pir*) in Medic which appear to be intensitives. These are to be compared with the Turkish intensitive prefixes to adjectives, and are said by Lenormant to be also traceable in Ostiak, Hungarian, Lapp, and Esthonian. The precative or exclamation is also preposed. The conjunction naturally is not.

Two preposed syllables in Akkadian and Medic are regarded by Lenormant as unknown in later languages. One of these is *It* or *Id*, supposed to mark locality; the other is *ki*, which is apparently nearest to the English "as" or "who." In Turkish *ta* and *ki* are suffixes of a somewhat similar character. In Hungarian *az* prefixed is the definite article.

These notes give us a fair idea of the probabilities of Hittite grammar, and it will appear that the evidence of the texts quite agrees with the general principles laid down.

(5.) *The Syllabaries.*

The sounds belonging to the Hittite emblems are to be recovered mainly from the Cypriote and other allied syllabaries. This is generally admitted, but a few general remarks may be necessary.

The syllabary as a rule gives us only one sound for one emblem. Now as regards at least the strong or noun-verb emblems in the Hittite, it is evident that they would have been connected (just as is the case in cuneiform) with more than one sound. It is improbable that the language could have been so poor as to possess only one word for any object, and indeed the evidence of the lists just consulted proves that this was not the case. It is pretty clear, therefore, that more than one sound may have survived in syllabic forms derived from a hieroglyph, and the case will be considerably strengthened by the discovery of two or more syllables having a common origin. Thus the Cypriote *pi* has the same form as the Carian *s*, both being derived from an emblem which appears to have been a personal suffix in Hittite.

On the other hand, more than one emblem is used for certain sounds in the Cypriote. There are two forms of *Le*, of *Pe*, and of *Pi*, which it is almost impossible to regard as derived from one original hieroglyph. The reason is found in the well-known fact that in Tartar languages, as in Chinese, roots of very different meaning have often the same or very closely similar sounds.

The Cypriote syllabary as at present known consists of fifty-four open syllables (*i.e.*, single consonants followed by single vowels), to which it has been proposed to add four closed syllables—*nos*, *man*, *gon*, *ros*. The existence of these four last appears to me to be more than doubtful. In the use of the syllabary by the Greeks double consonants are not represented (*ll* is *le*, *mm* is *me*, *gk* is *ke*, &c.), whereas closed syllables would have enabled the writers to overcome this difficulty. In many cases the *n* is omitted (*A-to-ro-po-se*, for Anthropos, &c.), and it will be noted that

three out of the four supposed close syllables include this letter. They may, therefore, I believe, be quite as properly read *os* (or *so*), *ma*, and *go*. As to *ros*, its existence is still problematical.

The sounds of the syllabaries are as indefinite as were those of the language originally represented. K, C, G and Kh are not distinguished, nor are T and D, or P and B, or M and V, while there is good reason to suppose that L and R were occasionally interchanged. All these sounds are equally indefinite in Akkadian and in Medic, as also in the living Tartar dialects. The vowel sounds appear also to have been indefinite. Thus the emblem *Mi* had also the sound *Me* or *Ma*, as we see clearly from its use to spell the Semitic word Melek or Malak.

In Cypriote the inverted vowel sound is not found, but the original hieroglyphs—at least in the case of the weak roots—probably possessed such inverted sound. Thus, in Akkadian, the third pronoun appears as *Na*, *Ne*, *Ni*, *In*, *En*, *An*, in accordance with the law of phonetic harmony, while such words as *Um*, "flame," and *Mu*, "burn," give a similar inversion. So in Tartar languages the inversion is commonly found.

The final *n* and *m* are weak letters very often dropped in both the ancient and the living languages. Hence, even in spelling Greek, we find these letters dropped as finals. They may often have belonged to the original hieroglyph, and in certain cases, such as the short *a*, *e*, *i*, which are used also for *an*, *en*, *in*, it is legitimate to restore the *n* to the hieroglyph.

The Hittite system appears to have consisted of about 120 emblems, and the syllabaries would thus allow of our recovering about half the sounds. The other half may have been closed syllables, or even polysyllables, which would account for their disuse in a late syllabic system.[1]

The emblems may be divided into strong and weak roots or noun-verbs, and attached grammatical forms. I have already pointed out th t the suffixes on the texts are generally smaller than the noun-verbs, and the packets indicated by single emblems and by phrase dividers. The sounds may be taken in order as follows :—

(6.) *Weak Roots.*

These prefixes and suffixes are more valuable than the nouns, because of the greater frequency of their occurrence and because of the grammatical indications recognisable in their relative positions.

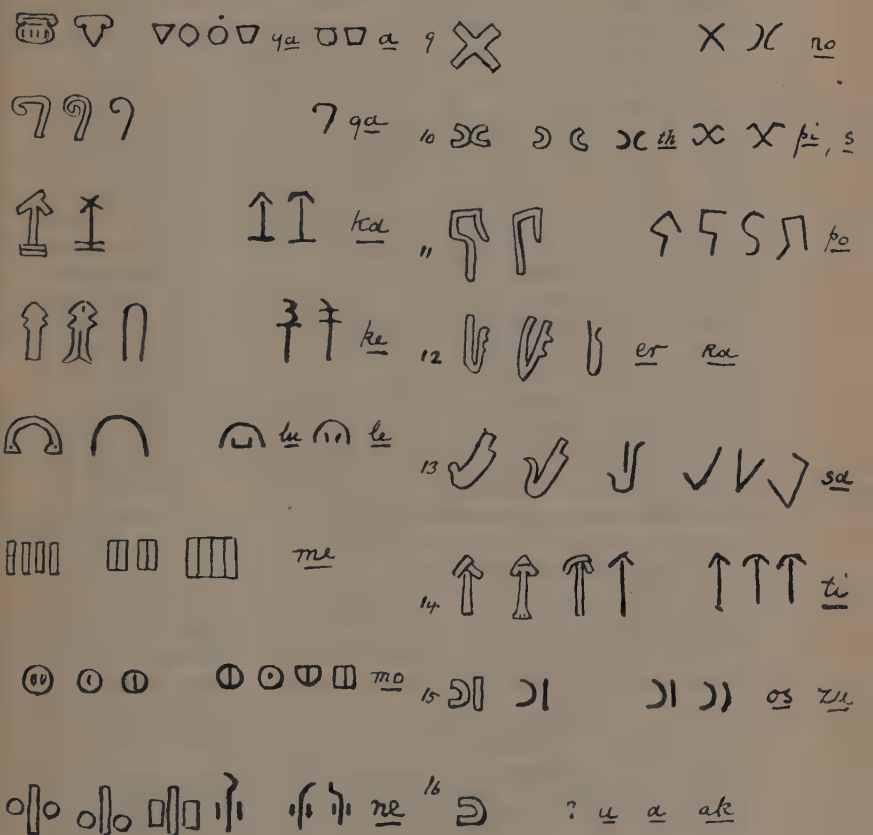
Aa, *Ya*, *Au*.—Emblem, a vase. In Cypriote it has all three values. In Carian it stands for *a*. In Akkadian *a* means "water." Susian, *a*. Vogul, *ya* or *ye*. Zirianian, *yu*. The emblem occurs more than forty times in Hittite texts, and may at times be a noun, at times an affix. So in Akkadian the emblem *a*, originally representing water, is used not only for the noun but also for the participle termination *a*. In twenty cases the emblem on the Hittite texts appears to be a prefix

[1] Thus in the Medic and other simple systems we find about half the emblems to be open syllables and half closed.

at the top of the line, in eight it is in the middle, and in twelve at the bottom, but when at the top it is sometimes part of a suffix of a word occupying two columns (as in the earliest cuneiform texts). In sixteen cases we find the group *a-ne* or *an*, perhaps like the Etruscan termination *an* for the participle ("Etr. Res.," p. 287); *an* or *van* is a common participial form in Akkadian, in Medic, and in Turkic, Mongolic, and Finnic languages. In Hungarian *Van*, "to be," is used for the auxiliary "to have" (Singer, p. 10).

The emblem appears also to occur for a noun in the names of deities on the Hittite texts.

Weak Roots.



Ga.—Emblem, a crook. This is a rare Cypriote sign. In Akkadian *ga* means "turn." In Tartar languages *ag* or *eg* means "to bend" or

"curve" (Vambery, No. 31, p. 27). There are fourteen known cases on the texts. In one the emblem is a prefix, in the rest apparently a suffix. In Akkadian *ga*, *gi*, *gu* is an exclamation—prefixed; as a suffix *ga* forms the adjective (Sayce, "Assyr. Grammar," p. 20, No. 227), like the Medic *iki* and Susian *ak*.

Ka.—The emblem is called a shaduf by Sayce. It appears to be a suffix of case occurring sometimes at the close of an enumeration, or "packet." At Hamath there are thirty instances, but only twelve on other monuments. From some texts it is entirely absent. In Akkadian *Ku* means "to" or "towards;" Medic *ikki*, "to;" Susian, *iki* or *ka*, "with." In Turkish we have the dative *ke*, *ga*, or *ge*; in Hungarian the suffix *ig*, "as far as;" in Basque *ko* or *go* means "from," and *ka* "with" or "at." At Ibreez the text by the god's head begins *Ka-ne*, or *Kan*, recalling the Etruscan *Ken*, "this," which commences inscriptions, and the Akkadian *gan*, "this."

Ke.—The emblem has a phallic appearance, recalling the the Akkadian *Uk*, "male," from which root the affix of the agent common to so many Tartar and Finnic languages may be derived. In Basque the affix of the agent is *-k*, and many Turkish nouns have this termination. It is also observable in Susian and at Malamir (Sayce, "Malamir," p. 74). There are about forty cases on the Hittite monuments, in three of which it seems to be clearly a prefix, recalling the peculiar Akkadian prefix *Ki* already mentioned. It also seems to occur re-duplicated in twelve cases, to be read *Keke* or *Kek*, recalling the Akkadian *Kak*, "to make." In three cases we find a suffix *Me-ke* or *Mak*, recalling the Turkish *mak* or *mek*, which forms the infinitive, the patient, and the participle. In Medic the termination *meske* seems to be of similar value; at Malamir, also, we find the suffix *mak* (Sayce, p. 74). The combination *Ke-ti* occurs once (and perhaps thrice), perhaps the Akkadian *Kit*, "with," Medic *Kutta*, "also." We also find *Ke-ga* apparently as a prefix, like the Medic intensitive *gik*, the Turkish چوق, *chok*, "much." The emblem is often suffixed to emblems apparently nouns, such as *Tarake*, *Anake*, &c., on the Hittite texts.

Lu or *Li.*—This appears to be a yoke. Compare the Akkadian *lu*, "yoke," perhaps the Tartar *Il*, *ol*, *ul*, "to bind together" (Vambery No. 42, p. 39). It is always an affix, like the Akkadian *li*, said by Lenormant to represent action done by a person ("Magic," Engl. Ed., p. 272). In Turkish, لو *lu* and لي *li* is the termination of adjectives of possession. In Yakut *li* is the adverbial suffix. The nearest English word appears to be "with." In Hungarian *ul* is an adjective ending (Singer, p. 86). This emblem in Hittite occurs more than once repeated in an enumeration, apparently of adjectives or adverbs governed by a case-ending *ka*. There are more than fifty cases of this emblem. In seven cases it is preceded by the plural *me* representing a plural adjective. In four cases we find *ne-li*,

perhaps like the Etruscan *nal*, meaning "he with," as a termination of proper names.

Me.—The emblem consists of four strokes. Its value is derived from the bilingual. It cannot represent the number 4 because it is not a prefix, and it is very improbable that No. 4 should occur frequently on texts where no other numbers are represented. I believe it to form the plural (as in other hieroglyphic systems) like the Susian, Akkadian, and Malamir *me*[1] (Sayce, "Malamir," pp. 40 and 75). There are about thirty known cases on the texts always as a suffix. The combinations *meke* and *meli* are mentioned previously. In two or three cases we find *Me-ti* or *Met*, perhaps like the Turkish *meh*, ـمك, which terminates names of actions.

Mo.—The emblem might represent the *Kteis*,[2] recalling the Turkish ـم *âm*; Tartar *Am*, *Em*, "female;" Akkadian *um* or *umu*. This emblem occurs both prefixed and suffixed, and seems to be the personal and possessive pronoun "I" and "me." In Akkadian it is found as *Am*, *Im*, *Um*, *Ma*, *Me*, *Mi*; in Medic *U* or *Vu*, "I," and *mi* "my;" Susian *Ma* or *Va*, "I;" Malamir *mi*, "mine;" Etruscan *ma*, "I" ("Etr. Res.," p. 284); Ostiak *ma*, Zirianian *me*, Samoyed *me*, "I." It is the Turkish ـم- (*-m*), "my," but in Basque it becomes *ni*, Finnish *ma*, Esthonian *ma*, Lapp *mon*, Tcheremiss *min*, Mongol *bi*, Manchu *bi*, and old Japanese *wa*. There are forty-eight known occurrences on Hittite texts, in most of which the emblem is a suffix. Texts occur, however, without a single occurrence which would agree with its use as a pronoun. Thus it is not found in the descriptive texts at Ibreez, nor is it known on seals (except Schlumberger, No. 18). The combination *mu-ne* occurs thrice, perhaps for "I him" or "me he," or perhaps the verbal termination—Medic *van*, Tartar *men*, Turkish *men*, Hungarian *van*, Akkadian *men*; but where it may be prefixed it recalls the frequent Akkadian prefix *mun*.

Ne.—This seems to represent the phallus, and it is the commonest of all the Hittite emblems. There are at least ninety-three occurrences, in twenty-four of which it is clearly prefixed. Thus, at Ibreez, it begins the text behind the King's head. The original meaning "man" or "person" survives in Turkic and Ugric speech (*see* the Etruscan *enna*, "Etr. Res.," p. 339). In fourteen cases this emblem is prefixed to the heads of animals on the Hittite texts, but these heads also occur without it. In Akkadian *ni* is often prefixed to the subject (Bertin, "J. R. A. S.," xvii, Part I). There are sixteen cases of *ane* as noticed already, four cases of *neli*, and one case of *nake*. This latter recalls the Etruscan *nak*, Hungarian *nak*, Ostiak *nak*,

[1] *Me* and *Mes* are both plurals, the second perhaps personal.

[2] It also closely resembles the cuneiform determinative for "female" in its oldest form, which had the value *Muk*, among others.

meaning "to" ("Etr. Res.," p. 309). In this instance *Zu-nâk* appears to mean "to thee"—see the Hungarian *nak*, *nek*, "belonging to" (Singer, pp. 9, 12). Also occurs in Akkadian.

In Akkadian *Na*, *Ne*, *Ni*, *Nu*, *An*, *En*, *In*, *Un*, are forms of the pronoun "he," "him," and (as an affix) "his." While the post-position for the genitive or ablative is also *na*. In Etruscan *na* is the genitive suffix. In Basque *-n* is the ablative and the demonstrative or relative pronoun (Van Eys, pp. 15, 16). *N* is the dative in many Turkic languages, and in Finnic signifies "belonging to." In Turkish it is the genitive, and forms the third personal pronoun. In Susian we have *na*, "of," and *ni*, "his;" and in Medic *nz*, "of." The emblem also occurs prefixed to signs of action, as in Akkadian we have *Nigin*, "surround," from *gin*, "enclosure." There can be little doubt that the emblem in Hittite has the same force as in the other languages of the same class, and we have already seen that *na* appears to have been the Hittite genitive case ending in the names of towns.

No occurs only once, and resembles the sign of opposition in cuneiform and in Egyptian. It is a prefix—the proper position of the negative. Akkadian *nu*, "not;" Medic and Malamir *inne*, Turkish ﻧﻪ *ne*, "nor."

Pi or *S*.—The first is the Cypriote, the second the Carian value. There are sixteen or seventeen occurrences always beneath larger emblems, apparently nouns. The emblem seems to represent a pair, and might represent a dual or plural. Compare the Tartar *äb*, "pair" (Vambery, No. 32, p. 29), the Akkadian *bi*, and the Basque *bi*, "two." The value S would also agree, since S is a Finnic and Tartar plural probably also recognisable in Akkadian, derivable from a root meaning "to cleave," as is also the dual *äb*. In Akkadian *ib* and *bi*, *es* or *se*, are personal affixes, and *ba*, *be*, *bi*, *bu*, *ab*, *eb*, *ib*, *ub* is a pronoun, "that one" (Bertin, "L'Incorporation Verbale," p. 3), which Lenormant says forms the absolute case ("Magic," Engl. Ed., p. 274), like the Lapp *b* or *v*, for the accusative, Tcheremiss *p*, Samoyedic *p*. Manchu *be*, and Turkish بو *bu*, "this one." In the Malamir dialect and in Medic, *pi* is supposed to be the relative (Sayce, "Malamir," p. 91), like the Akkadian *aba*, "who." In Finnish *pi* is the verbal pronoun, Esthonian *b*, Tcheremiss *be*, Yakut *by*, Yenissei and Samoyedic *ba*, "he who." The value S may be compared with the adverbial affix, Akkadian *as*, *es*, Tcheremiss *-s*, Lapp *-s*, Votiak *sa*, Mordvine *-z*. In Hungarian *as* or *es* is an adjective termination, and also stands for the agent (Singer, p. 85).

We have already seen that Hittite and other proper names often end in *s*.

Po.—This appears to represent a crook turned the opposite way to *ga*. Compare the Tartar root *Boy*, "to be bent" (Vambery, No. 227, p. 210).

There are not more than twelve cases, in two of which it may be prefixed. It is perhaps to be compared to the Turkish *bu* بو "this one," or the Medic *appo*, used for the relative (Oppert, "Les Medes," p. 277).

Ra or *Er*.—The value may be derived from the bilingual. There does not seem to be any clear occurence at Hamath, and it is absent from some other texts. The emblem looks like a cord or whip—compare the Tartar *ör*, a "rope," "twist," or "pigtail" (Vambery, No. 32, p. 28). There are about fourteen instances on one text (J. I.), and about twenty in all, in which this emblem appears infixed or suffixed.

Compare the Akkadian *Ra*, *Ri*, "to," "of," or "towards," incorporated in the verb. In Medic *Ra*, *Ri*, *Ir*, forms the adjective, the accusative, and the possessive (Oppert, "Les Medes," pp. 51, 279, 280). It occurs also at Malamir (Sayce, p. 102), and *Ir* means "him" in Susian and Medic. The case meaning seems to be connected with the old verb *Ra*, "go," the personal meaning would be from the root, *Er*, "man." In Basque, *ra* means "towards," and in Hungarian *ra*, *re*, means "upon;" on the Hittite texts we find the verbs, *In-tu-ra*, "gives to,' and *In-du-ra*, "goes to;" also in four or five cases, *Ti-ra* or *Ter*, and once *Termu*, perhaps the Malamir *Tar* and *Tarma*, "all" (Sayce, "Malamir," p. 110).

Sa.—This comparison is due to Professor Sayce. The Hittite emblem seems to be a hook or sickle. *Sa* is a common Turanian word for a cutting instrument, as in the Abase *Sa*, "sword," Tcherkess *seh*, "knife," from the root *az* or *aj*, "to cleave" or "open" (Vambery, pp. 1, 26; Taylor, "Etr. Res.," p. 335). There are some fourteen or fifteen cases of occurrence on the Hittite texts, in none of which it is clearly prefixed. *Ti-sa*, *li-sa*, *ne-sa*, *sa-li*, *sa-ne* all occur. In Akkadian, *sa* means "in;" Chinese *sa*, "interior;" Tartar *is üs*, "within;" *tis* means "interior" (Vambery, p. xii., and No. 38, p. 35). In Basque, we find *-z*, "with" or "by." The participial ending in *s* is common to Hungarian, Tartar, and Turkish, and occurs in the Etruscan *as*. This seems to be a case ending in Hittite, *ne sa*, meaning "with him." *Tisa* may be compared with the adverbial ending *Thasa* or *Thas* in Etruscan ("Etr. Res," p. 287); and *sa ne* might be compared with *isne*, "then," in Medic (Sayce, "Malamir," p. 104).

Ti.—There are two emblems very like yet distinct in Hittite, one an arrow, the other perhaps a spear. The arrow occurs ten times, five occurrences being as a prefix. The spear twenty-five times, eleven probably as a prefix, eight apparently infixed, and six affixed. The Tartar root, *At it*, means "to shoot" (Vambery, No. 28, p. 25), which agrees with the form of the emblem.

In Akkadian and in Medic the syllables *It*, *Ta*, *Ti*, occur prefixed and affixed with a locative meaning. Akkadian *ta*, "at," "out of,"

"by" (Bertin, "L'Incorporation Verbale," p. 3; Lenormant "Magic" Engl. Ed., p. 273). *Id* is a localising prefix in Akkadian; *It* or *Iz* in Medic; Etruscan *Eth* a localising prefix ("Etr. Res.," p. 327), and *Th* an abstract termination in Etruscan; Medic *ta*, Akkadian *da*. In Turkish, the locative suffix دا *ta*, "as far as" or "so that," still exists (Redhouse, p. 156), and *da* is the sign of the locative case "in" (p. 52). The combination, *Ti-ka*, on the Hittite texts may mean "all" or "only," and *ti-ke* might be compared with the Basque *tik*, "of" (Van Eys., p. 10).

It would seem that *Ti* prefixed is a locative, infixed it would form the abstract (compare the Medic *hal-t-ik*, "enmity," from *Khul*, "evil"). Affixed it may be the case ending meaning "in," "at," or "from."

Zu, or *So*, or *Os*.—The sound is not very clear. The value *nos* may be rejected for reasons already given. There is, however, a Cypriote *nu*, which is also similar to the Hittite.

This emblem always appears at the top of the column. When it occurs it is often repeated, but it is entirely absent from whole texts. Both these indications point to a pronoun. There are fifty-eight cases, all occurring in six texts. It is not found at Ibreez, or at Hamath, or on the seals. At Tyana there are twelve instances in four lines, and at Jerabis five instances in four lines, in one text, and ten in four lines, in another text. It appears twenty-two times on the Merash lion, and five times on the Babylonian bowl. There are six known texts from which it is absent. The Babylonian bowl is allowed to be a dedicatory text or invocation, and if so, this emblem might well stand for the second person singular.[1] There are two cases in which it is re-duplicated, which might be the second person plural.

In Akkadian *za*, *zu*, means "thou." In Basque, *zu* is the plural "you" (Van Eys., p. 23), in Finnish *sa*, Esthonian, *sa*, Mongol and Manchu, *si*. In Turkish we find *shu* شو "this" سن *san* "thou" سز *siz*, "you." The latter may be compared with the re-duplicated *zu-zu* (or *so-so*), of the Hittite texts. As in other languages so in Turkish "you," the plural, is often used for "thou," the singular, as a mark of respect (Redhouse, p. 82).

These fifteen signs, the values of which I first determined from the Akkadian, are therefore apparently supported by a further comparative study of the living languages, and it appears to me that, taken with the

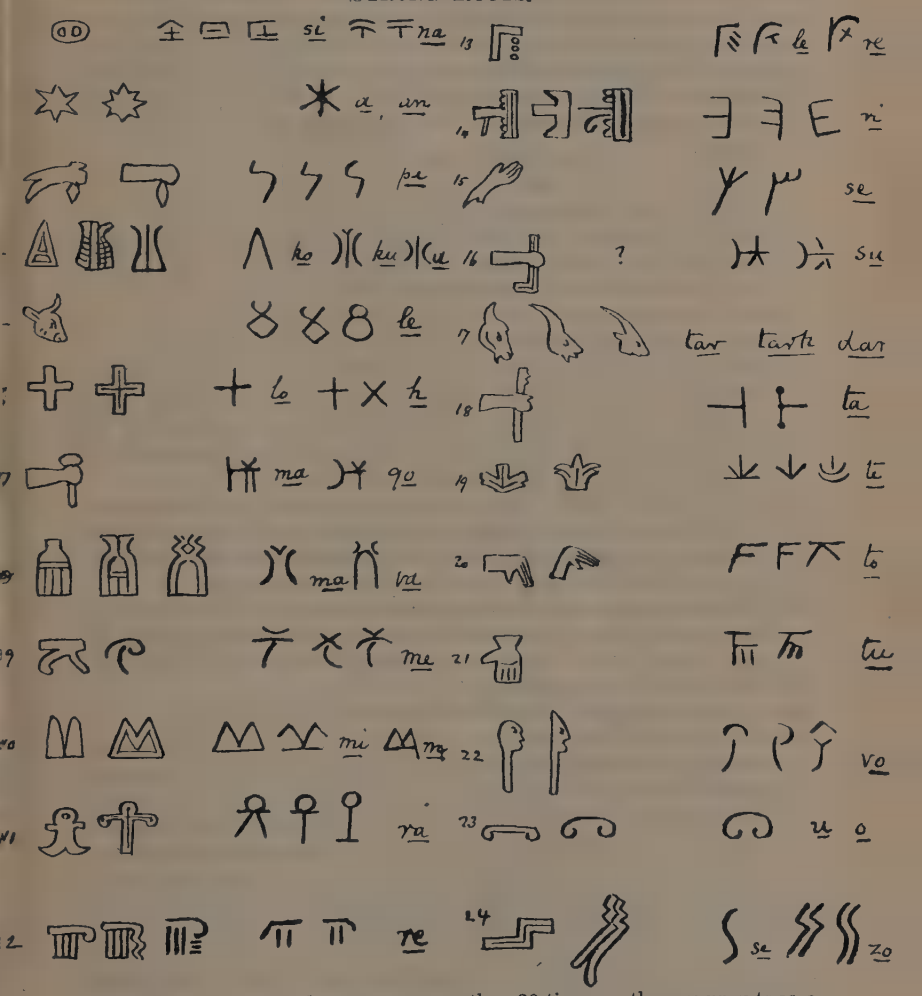
[1] Applying the rules here detailed to the Babylonian bowl, I obtain the following approximate rendering: "O may the spell make the God (Ea?) come nigh . . . to thee alone thou King above, thou . . . called enlightener Creator . . . Tammuz . . . fire God the (memorial?) made for thee invokes thee."

evidence of royal names and town names, they serve to make a very strong case for the proposed decipherment.

(7.) *Strong Roots.*

By this term I mean the noun and verb emblems to which the preceding are attached, using a term which is already accepted, and which

STRONG ROOTS.



[1] No. 16 on the 1st plate occurs more than 30 times on the monuments as a suffix usually. In 7 cases it follows *Ne*, and in 5 cases or more it follows the

answers to the Chinese distinction of "full" and "empty" roots. The arrangement of the emblems in Hittite is just the same as in the earliest cuneiform, except that the words are not divided by vertical lines of separation. The texts are boustrophedon, the emblems usually facing the commencement of the line. The strong roots have much larger emblems than the suffixes. The "packets" are indicated by single case emblems, which follow. The word often occupies two columns in the line. A slanting stroke shows the end of a word or clause. The words do not end always with the line (as is easily proved), which is also the case in Medic and at Malamir, but is said not to be so in Akkadian texts.

An or *Is.*—This emblem, which appears to represent "Deity," I have long supposed to be a conventionalised eye. It is quite possible that it may have had both sounds. The word *An*, for God, is found in Akkadian, Susian, and Medic; perhaps the Turkish ﻭﻨ *Ana*, "Saint;" Etruscan *An*, *Un*, *Uns*, "God;" perhaps the Tartar *An*, "being." The Eye is an Egyptian divine emblem. The value *Is* or *Si* would recall the Akkadian *Si*, "eye" or "see;" Chinese *Si*, "eye;" Akkadian *Es*, *Is*, *Issi*, "brightness;" Medic *Siya*, "to see;" Tartar *jis*, *is*, "bright" and "light" (Vambery, No. 135, p. 124), this root is much used to signify deity. It occurs in Finnic languages (Donner, i, p. 20; ii, p. 31, 32). The Etruscan Æs-ar (plural), the Siberian *Asa*, Yenessei *ais*, *eis*, *es*, signify "God" (Taylor, "Etr. Res.," p. 145). Castren says that Es is the word for supreme deity among all Altaic peoples. Altogether there are thirty-two known instances on the Hittite texts, always as a prefix. In one of these it appears to be re-duplicated like the Akkadian *An-an*, "gods."

An or *A.*—Emblem a star. It occurs on seals only as yet. In one case it replaces, on a seal, the last-named emblem in the name of a god, which is a strong argument that the preceding *An* means "deity." The cuneiform *An*, "god," is also from a star hieroglyphic.

Be.—The arm and dagger. Only found nine times, in six cases with the foot (probably for the passive) following. See the Akkadian *Be*, *Bat*, "slay," "die;" Tartar *ub*, "strike," *Bet*, "cut" (Vambery, Nos. 153, 217, pp. 142, 203).

Dim.—On the bilingual. Much resembles the cuneiform *Dim*.

Ko and *Ku.*—Two forms of Tiara. There are more than twenty occurrences. On the bilingual, the tiara has the meaning "king." Another possible value is *Uu*, as in Lycian. In eight cases the emblem is re-duplicated. In one case we find Tar-ko (apparently for the name of a god); in another two cases the tiara precedes a king's head, as if equivalent to the re-duplicated tiara. There is also a seal with a king's figure accompanied by a re-duplicated tiara, and there can be little doubt as to the meaning of the emblem.

altar. I believe it to have had a simple vowel sound, and to be perhaps a conjunction. It is sometimes absent from a whole text. Medic conjunction, *ak*, Akkadian *ua* (Lenormant), Turkish *ve*, "and."

As regards the sound, the existence of a word *Ku* or *Ge* for "prince" is admitted by Pinches, Bertin, Fox Talbot, and others, in Akkadian (*See* No. 462 in Sayce's "Assyrian Grammar," p. 40, *cu*, "prince," "precious"); Norris and Lenormant also admit the word in Medic, though Oppert prefers to use other synonymous words. The words *Ak*, *Uk*, *Aka*, are also rendered "king" by various students, the latter occurring in the name of the Hittite king, Akitisebu, and in the Turkish آقا *Aka*, "prince." The re-duplication may be compared with the term *Khakhan* applied to the chiefs of the Khozars, west of the Caspian. *Ku*, in Akkadian, also means "high," "bright," "silver," "precious." In living languages we may compare the Tartar *ag*, *eg*, *ök*, "Lord" (Vambery, No. 30, p. 27), and "high" and "strong" (pp. 6, 9); *ege*, "prince," and other words, from the same root, meaning "bright," "precious," "white," "silvery." In Finnic languages the same root occurs as in the Ostiak *Khu*, "long," and the root *Koi*, "bright" (Donner, i, pp. 1, 9), is perhaps connected with *Ku*, "fat" or "thick," and the Basque *Goi*, "height." In Chinese also we find *Kok*, "high." The syllable in Cypriote has the sounds *Ko*, *Go*, *Kho;* and perhaps *Kha*, "prince," in Akkadian, may also be compared (the common Tartar *Khan*, Chinese *Kon* or *Kan*). As regards the value *Uu*, compare the Akkadian *U*, "Lord." Tartar *uu* or *ou*, "important" (Vambery, No. 8, p. 9).

Le.—The bull's head. This emblem occurs fourteen times. In four cases *Ne* is prefixed, and in two it follows. Once we have *ā ne* following, and once *er* or *ra*. In Akkadian *Le* is "bull." Other common words are *Gut* and *Khar*, both meaning "bull" in Akkadian. *Gut* is "bull" in Chinese, perhaps connected with the Tartar *Güt*, "mighty" (Vambery, p. 104). *Khar* is the Finnish *Kirjo*, Vogul *Kar*, *Khar*, *Ker*, *Kher*, *Kir*, "ox;" Tunguse *Sar*, Mongol *uker*, Hungarian *ökör*, "ox." If, as is very probable, this word existed in Hittite, the head may spell the words *Kharra* and *Kharrane*, meaning "high" or "heavenly."

Lo or *H.*—The first is Cypriote; the second, Carian. The emblem is the Cross, which in Chaldea and Etruria was a sacred emblem, and is held in the hand of a god on the so-called Hittite cylinders. It is usually supposed to be a sign of "life," like the Egyptian *ankh*. It only occurs twice. Compare the Akkadian *lu*, "man;" Zirianian *lō*, "spirit;" Tartar *ol*, "to live;" and for the second value the Akkadian *Khi*, "good;" Turkish ايي *eei;* Tartar *Khai*, "good."

Man or *Ma*, or *Gon.*—The hand with a sceptre. It only occurs twice. Perhaps connected with *Man*, Akkadian for "king;" also probably Etruscan. It is the Tartar *Mañ*, whence the Yakut *Mana*, "leader;" Finish *Vana*, "elder." *Gon* would mean the same.

Ma(*n*) or *Va*(*n*), or *Ma* or *Va.*—This is a rare emblem, perhaps another kind of tiara.

Me.—This is a much conventionalised emblem, perhaps a hand. There are thirteen clear cases at Hamath, and one at Ibreez; but at Jerabis it seems to be replaced by a well drawn hand, occurring with the same group of emblems. As it is generally found at the end of texts or phrases, it would seem to represent a verb root. There is no case as yet in which it is prefixed. Compare the Akkadian *Ma*, "be;" Tartar *am*, *em*, *im*, "existing;" and the Turkish *me*, for names of actions.

Mi, *Me*, or *Ma*.—As already noticed, this is a common Turanian word for "country." Its existence in Akkadian is acknowledged by Lenormant, Delitzsch, and Pinches. (*See* Sayce, "Assyrian Grammar," No. 291, p. 25, *ma*, "to dwell," "plain," "country.") There are as yet only three clear cases of occurrence, one being on the bilingual, where it stands for "country." The emblem represents two mountain peaks.

Ra.—There are only two cases. The emblem occurs also on cylinders, and as I pointed out some time ago, this emblem, frequently found in Phœnicia, seems to be akin to the Egyptian ankh.

Re.—This emblem occurs about fifteen times. Perhaps to be compared with the root *Ri*, "shine" or "bright," in Akkadian representing rays of light descending, or as in cuneiform and Egyptian emblems representing "rain," from *Ri*, "flow."

Re.—A much rarer emblem seems to represent water dropping or pouring. Compare the root *Ri*, "flow;" Tartar *er*, *ir*, *ur*, "to flow," as already mentioned in Section 3.

Ri.—This emblem, which I have supposed to be perhaps the fire stick (*bil* or *bilgi*[1]), occurs on the Babylonian bowl as the name of a god. Compare the Akkadian deities *Ri* and *Ira*. It only occurs five times, in four instances of the same word, and in the case just mentioned. In Akkadian *Ar*, *Ir*, *Ur*, means "light," "fire," "heat;" the Tartar *yar*, *or*, *uor*, *ör*, "to gleam," "burn," "shine" (Vambery, No. 128, p. 117), and *Ri* means "light" or "brightness" in Akkadian.

Se.—The hand. There are only a few cases. Akkadian *Sa*, "put," "give," "have;" *Saa*, "favourable;" *Se*, *Si*, "give." Tartar *aja*, "the open hand" (j and s being convertible); *aj*, *ej*, "favourable;" *es*, "lucky" (Vambery, pp. 1, 3, 4), *saa*, *sau*, "to take" (p. 157).

Su.—There are only four cases. An arm holding some kind of stick or cord. Perhaps to be compared with the Akkadian *us*, "king;" Tartar *ös*, "lord;" *us*, "great;" *us*, "master" (Vambery, pp. 27, 57, 62).

Tar.—This emblem of the deer's head stands for Tar, or Tarku, on the bilingual. In Akkadian *Dar* or *Dara* means "deer." In Finnic we find *sordv*, "stag," from *sor*, "horn." There are about ten occur-

[1] *Gi* means "flame;" compare the Finnic *keo*, "hot," *kaila*, "flame," Tartar *köö*, "burn." *Bil* I propose to compare with the Tartar *bil*, "to rub" (Vambery, p. 198), so that Bilgi would mean flame made by rubbing with the firestick.

rences of this sign, once as the name of a deity (Tar or Tarku) on the Merash lion.

Ta.—The hand holding a stick. This is a rare emblem. On the Hamath stones it occurs, followed by *ne*. Compare the Akkadian *Da*, "drive;" *Tan*, "power;" Chinese *Ta*, "noble;" *Tan*, "hero;" Uigur *ite*, "master;" Cagataish *tay*, "power;" Finnic *tan*, *tun*, *ten*, "strong. (Donner, i, p. 143.)

Te.—Emblem an herb. Compare the Akkadian *Ti*, *Til*, *Tin*, "life;" *De*, "move;" Tartar *at*, "move;" *Tin*, "life" (Vambery, Nos. 27, 39, 186, 189); Turkish ايتمك *itmek*, "to sprout," اوت *ot*, "herb." There are about 13 clear cases on the known monuments never apparently prefixed. The group *Ni-te-li* at Ibreez may mean "living." *Te ne* also occurs (Akkadian and Tartar *Tin*, "life").

To.—The hand in attitude of taking. There are only six clear cases. Compare Akkadian *tuk*, Medic *Duni*, "take," "give;" Etruscan *teke*, "give;" Tartar *Tek*, "touch" (Vambery, No. 173, p. 159); Finnic *Tuk*, "touch" (Donner, i, p. 109). The Akkadian *tu*, "make," is a common Ugric and Tartar root no doubt connected.

Tu.—The hand pointing downwards. There are only two clear cases, Akkadian *Tu*, "down," "descend," "death;" Turkish دون *doun*, "down," "below."

Vo.—A head on a stalk. Dr. Sayce renders it "pray," or "worship" (*kue*). It may have the value *gu*, and *Vo* (or *Mu*) as well. The emblem usually stands alone at or near the end of a packet, or of a text, so that it would seem to represent a verb. There are about 17 clear cases. As yet it is not found on any seal. Akkadian *Mu*, "name," "call;" *Me*, "speak." Tartar *oñ*, "cry" (the ringing *n* being often put for M. Vambery, No. 54, p. 49.) Akkadian *gu* and *ka*, "say," "word" (the K and M are often interchanged.) Tartar *ig*, *iau*, "cry;" *kui*, *kuj*, "voice" (Vambery, pp. 106, 129, 130). Finnic *kï*, "speech;" *juoi*, "call." (Donner, i, pp. 58, 102.) The combination *voka* or *guka* occurs five times ("word for," or "name for;" *Vo-me-ka*, three times ("words for," or "crying to,") and *Ne vo* (a verbal form), once, *Vo li* (or *gu-li*) the participle once, and *Mo-vo*, "I say," twice.

U or O.—Emblem, the firmament. Dr. Sayce calls it the emblem of supremacy. The sound here given is taken from a Carian emblem. Other possible sounds would be *ub*, *Pa*, and *Pak*. There are about twenty known cases, in thirteen of which it is a prefix. On the new Gurnun text it seems to occur several times above the emblem for deity.

Akkadian *u*, "day;" *ub*, "heaven;" *pa*, "sky," perhaps the Tartar *u*, *uv*, *up*, "curved"—the vault of heaven.

Zi or *Zo.*—Emblem, perhaps the lightning. The exact sound in Cypriote is doubtful. There are ten clear cases. In one instance it is the name of a god. Akkadian *Zu*, "live," "grow;" *Zi*, "life," "spirit," "flow;" Tartar *uz*, "grow," *Is*, *es*, *us*, *os*, "flow," "fly," "spirit." (Vambery, No. 40, p. 37, and p. 57.)

These lists do not exhaust the notes of comparison which I have collected, but are sufficient for the present purpose of showing how the sounds of the Hittite language may be recovered and compared. From the name lists we here recover 34 words, and several indications of grammar and from the texts themselves 40 roots, without counting derived words or compounds. I believe at least 100 Hittite words in all are recoverable from the materials at our command. It appears to me that it is necessary for those who may feel inclined to criticise these results,[1] not merely to select a word here or there, but either to show some radical fallacy underlying the system, or to give some alternative comparison capable of being better adapted.

I have reserved for the present the results of a careful comparison with cuneiform and with Egyptian. I believe in 38 cases, Hittite and Egyptian emblems have the same form and meaning, and out of these in 12 cases the same, or very nearly the same sounds. In 38 cases also the Hittite and cuneiform form may be compared, and in 18 cases out of these not only form and meaning, but sound also is the same—the sounds being of course independently obtained.

I agree with M. Bertin, and other scholars, in supposing that Hittite, cuneiform, and Egyptian, had a common origin in an ancient picture-writing system, from which the Chinese also developed. I believe this to have originated somewhere near the Caucasus among Turanian tribes, and to have been adapted to an African language in Egypt, just as to a Semitic language in Chaldea; but since the "weak roots" have independent emblems in the three systems, I think they must have separated and developed independently from a remote age before the orginal language had advanced to the agglutinative stage.

I further believe the Semitic alphabet to be demonstrably derivable from the Hittite emblems, the chief reason being the use in Carian and Lycian, &c., of a transitional system; for it is contrary to ordinary palæographical experience to suppose (as scholars are now obliged to do) that a mixed alphabet can have existed derived from two distinct sources.

C. R. Conder.

[1] The only criticisms as yet (by Dr. Sayce and others) have had respect to details. I have answered these fully in "Altaic Hieroglyphs" (second edition), and in *Palestine Exploration Fund Quarterly Statement*, 1887. I have modified former proposals in this paper in five cases, and have added nine new comparisons, increasing the number of sounds recovered from 31 to 40. Space does not allow of giving the lists which I have prepared, comparing Akkadian in about 400 cases with Tartar roots, in 200 with Turkish, in 70 with Medic, and in other cases with Ugric, Finnic, and Mongolic languages, and with Chinese and Etruscan. There are at least 150 Tartar words in Egyptian, and these, as a rule, occur in Akkadian also. My list of restored Hittite words exceeds 100 in all. The question of the comparison of the three hieroglyphic systems I hope to treat elsewhere in a separate paper. The question of the origin of the Alphabet is also published separately.

Corrections and Notes.

The proof of the "Hittite Language" having been submitted to various scholars for criticism, I have been favoured with their remarks on details, and add the results as far as they have reached me.

Bulug, "division," is regarded by M. Bertin and Prof. Sayce as a Semitic word. The root, however, is common in Turanian speech. *Zab*, "soldier," is also considered Semitic by M. Bertin.

Nautab is more correctly *Natub*, according to Rev. H. G. Tomkins, who also objects to *Kharab* (*Khalebu*), and to *Ganiab* (better *Kainab*). *Buresu* is otherwise read *Suresu*, but the inscription is here injured. *Tamakua* is perhaps more correctly *Tzemauka*.

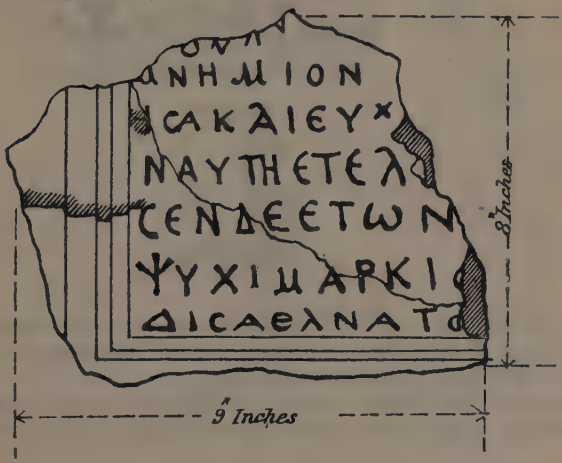
Li, given by Lenormant as an adjective termination, is not accepted by M. Bertin; *U* or *Ua*, "and," is read *Sa* by Prof. Sayce, but this is still apparently doubtful.

As regards the termination *meti*, in Hittite, I may add that *meta* occurs, meaning "being" in Akkadian (Bertin on "Assy. Pronouns," p. 19), which strengthens my case.

There is of course a good deal of doubt about some of the words given as Akkadian on the authority of Lenormant, Delitszch, and others. M. G. Bertin has kindly looked through these words, and doubts especially—*Pakh*, "king;" *Pis*, "hero;" *Zana*, "superior;" *alu*, "city" (probably Semitic); *us*, "King;" *Tu*, "down." He also reads *lu* for *le*, "bull,' and queries other words; but by the system used in this paper the uncertainties of Akkadian are often overcome. C. R. C.

RECENT DISCOVERIES.

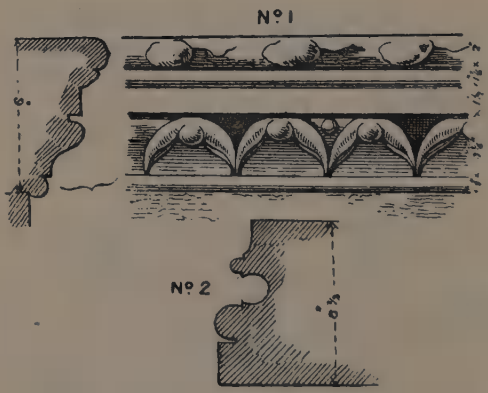
Lejjûn.—At Lejjûn, this ancient Roman place of the Merj ibn 'Amir (Plain of Esdraelon), the following Greek inscription was found, unfortunately not complete :—



The inscription is engraved on a soft white limestone, surrounded by a cornice.

Haifa.—At the west of the German colony at Haifa, near the modern Jewish cemetery, in an abandoned garden, covered with quicksand, several large sarcophagi covers of sandstone were discovered after the upper layers of the sand were transported on wagons to the gardens of the colony. The sarcophagi covers, herewith sketched, had an average length of 7 feet 1 inch, an exterior width of 2 feet 11 inches, and a height of 1 foot 11½ inches. The sarcophagi themselves, or rather the graves, were formed by nicely hewn sandstones of large size, up to 6 feet by 3 feet, and masoned together so as to form a grave of rectangular form, sufficient in size to be covered by the top slabs sketched. Each of the three top slabs had on each corner of its sloping top a horn, 11 inches high, 8 inches in diameter, which gave the whole a suitable ornamentation. The interior of the graves were somehow plastered with a good covering of white mortar. The workmen, who were busy in destroying these ancient remains and cutting them into building stones of such size as to be transportable on camel's back, pretended that they had also dug out human bones, which I saw no more. This place and vicinity (see "Memoirs of Palestine Exploration Fund, Haifa," Vol. vi, p. 303) must have been an ancient Jewish burial place, as seen from the data mentioned by Benjamin of Tudela, &c.

Kefr Kenna.—The annexed sketch, No. 1, represents an ornamentation found at Kefr Kenna by the Superior of the Latin Convent there; it is carved in the so-called Nâri (a soft crumbling lime) stone, and as so very



few ancient remains are found at this place, may be of some interest; No. 2 was also found here, and seems to be the attic base of a column, while No. 1 is the top of a crowning cornice.

Mâ-mâs.—At the Roman Theatre of Mâ-mâs, I found these **H R K** mason marks. The greatest part of this ruin is carried off and overbuilt.

Tiberias.—The surface of the Lake of Tiberias is 5 feet 1 inch *lower* than it was in February, when I marked its height on the city wall, at the time of heaviest rainfall. The inhabitants of the city are surprised of this low stand of the lake, it being the lowest since many years, and was caused by the dry season and the relative poor rainfall of last winter. The Jordan, near Bâb et Tumm, at its outflow out of the lake is only knee-deep, while in March last I crossed the river in a boat, measuring a maximum depth there of nearly 6½ feet. The springs also, throughout Galilee, but especially in the district of Tiberias, became unusually poor, and many dried up totally; so for instance, the large town of Lûbieh and of Nimrîn are obliged to get their entire water supply, since September last, from the powerful but distant spring of Hattîn, at a distance of 4 and 2 miles respectively. At Nazareth the want of drinking water becomes most urgent, as even the good supplying spring at Kerm el Emîr could no more answer the wants of thousands, not a drop being left any more to irrigate the gardens below. Foreigners, who were not happy enough to have friends, found nobody, not even for money, to water their animals. In Northern 'Ajlûn, where the cisterns became empty during September, and no spring was near, the want of water became a burning question. A Mukâri (muleteer), loaded with dry goods from Damascus, told me that he wandered about in Northern 'Ajlûn for three days without finding a place to water his animals, he himself suffering most terribly from thirst, as no villager allowed him to have a drink until he finally forcibly seized a "kirby" (leather bag) of water from an old woman to answer his wants. Considering that declining to hand a drink of water over to a stranger is about the last thing that is expected by an Arab, and is throughout considered as an action of the basest kind, the state of water wants in 'Ajlûn must have been very very high indeed. Several rainfalls during the last weeks have raised this question to a supportable degree.

Shefa 'Anir.—In the south of the town, just below the small castle, el Burj, and near where the officers of the "Fund" had found and described tombs, other tombs along the road were discovered. They were so well shut by stone doors that their existence had hitherto escaped the eye. They generally contain three to four koka, and show here and there on the walls Christian emblems and crosses. Human bones and copper bracelets, and some lachrymatories, are said to have been found, but carried off by a monk, who happened to be near at the time of discovery.

Athlît.—This crusading castle has been bought privately by H. E. the Governor-General of Syria, who intends to pull down the dirty fellahîn houses, and part of the ancient remains, and to rebuild a proper village, to drain the marshy land, and to cultivate gardens. While surveying this part I was surprised by the abundance of old cisterns along the low hills of Athlît, the large sandstone quarries (el Makatîyeh), and the remains of irrigation canals and basins within the jungles of "Tarfa" or Tamarisks. The total area of the property belonging to Athlît measures 54 feddans (among which 33 of cultivated soil), or each government feddan, measuring 200 dunnums, about 10,800 dunnums = 2,340 English acres. Many

ancient remains may be brought to daylight by this desirable act of civilisation.

Sŭrafand.—Last week fishermen from this village caught a young sea-calf in their nets while fishing in the sea and brought it ashore; the cries of the young animal soon attracted its mother, which also appeared and was killed by gunshots; this animal very seldom appears in this part of the Mediterranean, and I immediately sent for its remains, but, unfortunately, the young calf had since died, and the meat of the other was entirely eaten up by the villagers, who pretended it to be of the taste of the best salt-water fish. All I could obtain was part of the skin, a very smooth hair-skin, much finer than that of a cow, and speckled white and dark brown. The calf is called Kelb-bahr (sea-dog) by the natives.

Haurân.—I have just been informed that near es-Sunaneim, in Northern Haurân, near the Lejjâh, a great fight has taken place between the 'Arab-el Lejjâh Bedawîn and the Druses of Jebel Haurân. Government soldiers, well armed, numbering several hundreds, attacked the Druses, who had unfairly commenced the fight, and were naturally supported by the Bedawîn. Up to now about 150 Druses were killed, and about 300 wounded, the loss on the other side was not severe. As the Druses had also lately killed the young son of a Kurdian Emîr of Damascus, while the innocent boy took a ride on the Merj, an action which nearly gave way to a general rise among the Kurds of Damascus, the Government is severely considering the question of a large expedition to pacificate the revolting Druses of Haurân.

G. SCHUMACHER.

Haifa, *November*, 1887.

NOTE.

A FEW days ago a friend, who is staying with me here, in the course of an excursion to the "place of burning" and the Tell el Kassîs, found, about 200 yards from the base of the mountain, on his way to the latter place, a chipped flint arrow-head. It was especially interesting to me, as the spot at which it was picked up is only about a mile from the "fort" which I discovered about four years ago, called El Kul'at, and which I observed at the time in my article on "The Khurbets of Carmel," bore all the appearance of a pre-historic period. As on the occasion of my previous visit, the day was closing in too rapidly to enable me to give it the attention it deserved, I re-visited the spot a few days ago, thinking that I might possibly come across some more flint implements; but these are curiosities which one never finds when one is looking for them. I took the opportunity of making a rough sketch of the fort, and of part of the ancient wall, which is composed of large unhewn stones laid upon one another. The circular area inside is 82 feet by 75. The position must have been a very strong one, as it presents a precipitous face to the plain, above which it is situated about 300 feet, while in

rear the flank of the mountain is quite inaccessible. It is connected with the mountain by a neck of land, on which are the remains of some ancient ruins, and is approached from the side.

I have also been able to decipher the only inscription I have yet found on Carmel; it is over a rock-tomb at Kh, Raktiyeh (*see* article on "Khurbets of Carmel," *Q.S.*, p. 30, 1884), and is as follows:—

"MAPEINOY MNHMEION,"

on the tomb of Marinos, evidently from the crosses cut below the name, a Christian. It is interesting as showing that until the conquest of Palestine by the Moslems, these rock-tombs were used by Christians.

LAURENCE OLIPHANT.

August 2nd.

BOAT-SHAPED GRAVES OF SYRIA.

In the *Quarterly Statement* for October, 1887, I described some boat-shaped graves which I saw in the Anti-Lebanon. In the *Quarterly Statement* for January, 1888, Captain Conder suggests that these graves should be compared with the anthropoid sarcophagi of Phœnicia, and with the wooden mummy cases in Egypt. "The form," he says, "follows that of the human body." If he means the form of the anthropoid graves of Phœnicia, why, of course it does; but if he means the form of the graves which I described, I must say distinctly that it does not. The form is boat-shaped, and not human-shaped. Captain Conder apparently has not seen the graves, and has not seen my drawings.

I observe also Captain Conder's present opinion, that "Charon was probably not connected with Horus, but with the Etruscan Charun, 'the black (or evil) god' of death." I did not mean to assert on my own authority that Charon was connected with Horus. I mentioned that a carnelian scarab found at Amrit, in Phœnicia, exhibits a ship with the sun above it, and letters which Perrot reads as Kheb, but which Captain Conder would read Kher and regard as the Semitic spelling of Horus. I said, also, that in the boat which was brought up to the lake side in the funeral ceremony in Egypt the boatman's name was Charon, and both Charon and his boat were adopted by the Greeks. This statement rests on the authority of Sir Gardner Wilkinson, who quotes Diodorus, and adds that both the name and character of Charon are taken from Horus, who had the peculiar office of steersman in the sacred boats of Egypt.

GEO. ST. CLAIR.

THE CITY OF DAVID AND ACRA.

In the *Quarterly Statement* for 1886, p. 27, I stated that Josephus described the part north of the Upper City (the Acra of Sir Charles Warren and Captain Conder) as the *suburb* (*προάστειον*), but I omitted to point out the evidence.

In reference to this part Josephus says (Wars v, iv, 2) that the second wall only encompassed the northern quarter (*τὸ προσάρκτιον κλίμα*). But again in reference to a particular part of Jerusalem, Josephus speaks of it as the northern quarter (*τὸ προσάρκτιον*) in Wars i, xiii, 3, but as the *suburb* in the parallel passage in the Ant. xiv, xiii, 4, thus identifying the two. With this agrees the statement in Ant. xv, xi, 5, that two of the *western* gates of the temple led to the *suburb*; inasmuch as the part north of the Upper City was on the *western* side of the temple.

Thus Josephus places the *suburb* north and the Acra east of the Upper City, on Ophel (so called, 1886, 27), hereby unconsciously admitting that Ophel was the site of the City of David. This is clear, since Josephus identifies his Acra with that of the Maccabees (Wars v iv, 1), which was the City of David (1. Macc. 1, 33), which was on Ophel (Old Test., 1885, 100). The City-of-David-question is really as clear as noon, and as easy as A, B, C, until Josephus' guesses at truth are weakly taken to be truth.

For critics in search of the true position of the City of David and Acra, it seems indeed an odd device to disregard entirely the Old Testament and to go to Josephus for its City of David, and to modern theorists for his Acra; instead of going to him for his Acra, and to it for its City of David. My topographical opponents are welcome to confide in Josephus or not, as they like; but it is nothing less than infatuation to *believe* him when he contradicts the Old Testament, writing of what he may have heard, read or thought, but certainly had not seen, and then to disbelieve him when he writes of what he had actually seen.

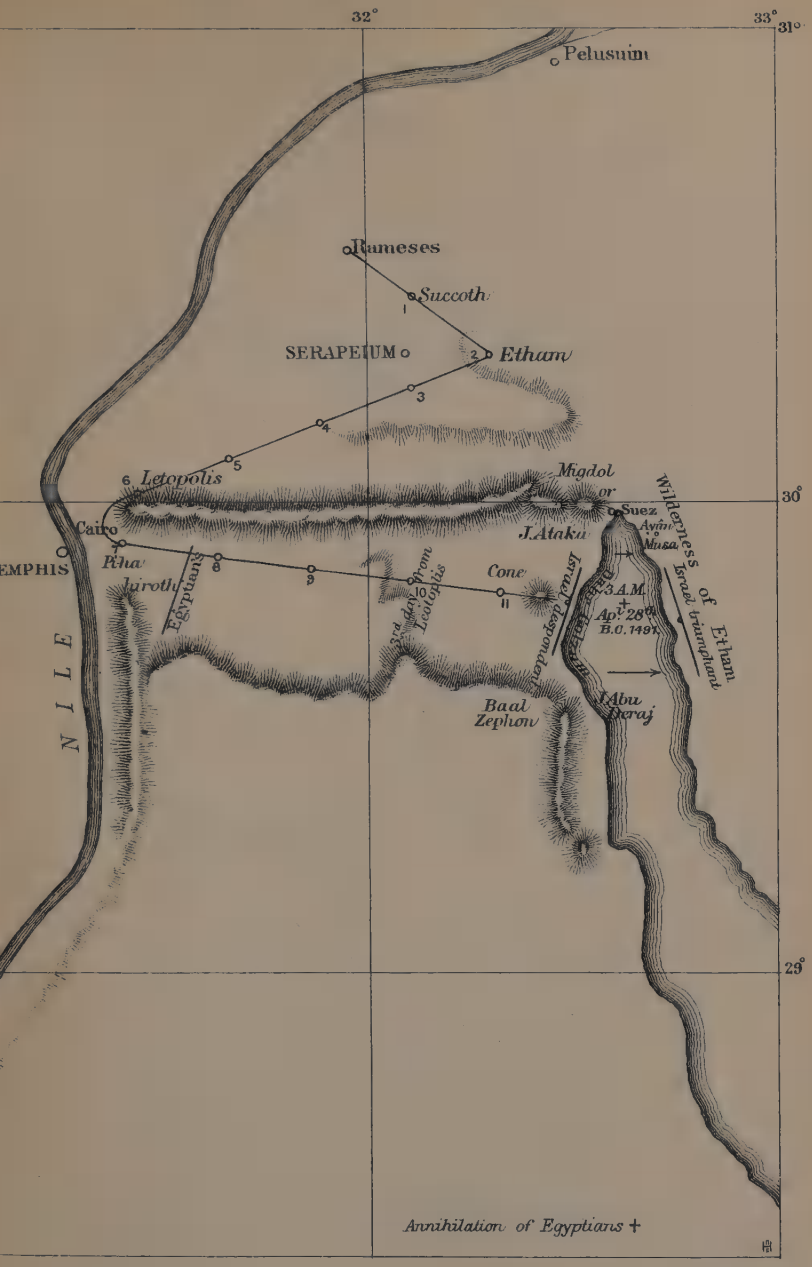
W. F. Birch.

ERRATA.

October, 1887.—Page 210, line 9, *for* Tibnite, *read* Tabnite.
„ Page 210, line 15, *for* Dodorus, *read* Diodorous.
„ Page 213, line 37, *for* 6 in plan, *read* b in plan.
„ Pages 217, 218, *for* rock level 2411·6, *read* 2511·8.
„ „ „ 2412· *read* 2512.
„ „ „ 2414· *read* 2514.
„ „ „ 2415· *read* 2515.
„ Page 239, line 24, *for* Disopolis, *read* Diospolis.
„ Page 240, line 14 from bottom, *for* Atakak, *read* Ataka.
„ Page 240, line 4 from bottom, *for* then, *read* there.

October, 1887.—Page 241, top line, *for* sau, read sau.
„ Page 241, line 24 from top, *for* Gen. 33, 37, *read* 17.
„ Page 241, line 31 from top, *for* Mirian *read* Hiram.
„ Page 241, line 31 from top, *for* 45 *read* 46.
„ Page 241, line 6 from bottom, *for* 20 *read* 30.
„ Page 242, line 13 from bottom, *for* Jabel *read* Jebel.
„ Page 243, line 6 from top, *for* Pita, *read* Piha.
„ Page 243, line 21 from top, *for* Pe, *read* Pi.
„ Page 244, line 2 from bottom, *for* Clyoma, *read* Clysma.
„ Page 245, line 18 from top, *for* xv, *read* xiv.
„ Page 245, line 4 from bottom, *for* 12, *read* 11.
January, 1888.—In the list of subscriptions, *for* C. White, *read* Edward White.
„ Page 22, line 7, *for* Waly Rephaim, *read* Wâdy Rephaim,
„ „ „ Bettis „ „ Bitîtr.
„ „ „ Iswain „ „ Ismâîn.
„ „ „ Sarar „ „ Sŭrâr.
„ „ line 8, *for* Arlouf „ „ 'Artûf.

ROUTE OF THE EXODUS.



Vincent Brooks Day & Son lith.

British Miles 69·1=1 Degree

0 5 10 20 30 40 50 100

Enlarged from Stanford's Smt. Ancient.

THE

PALESTINE EXPLORATION FUND.

NOTES AND NEWS.

We have generally an announcement to make, but not often of so much importance as that of this day. It is the discovery of the Pool of Bethesda.

The modern identification of this Pool with the Birket Israil, north of the Haram, has never been accepted by any who have studied the question. The twin pool at the Convent of the Sisters of Sion has been of late years generally believed to have strong claims. The new discovery, however, removes the Pool to quite another place.

The Algerian Monks (French), *see* p. 115, digging on the north-west of St. Anne's Church, came upon a tank, about 100 feet distant. Crossing a courtyard and entering by a narrow passage, a building, measuring about 70 feet east and west, by 25 north and south, with an apse at the east end, was found. Its floor (about on the level 2,400) was some 7 feet below the general surface of the courtyard. Under this building are vaults about 10 feet deep, the floor level being that of the surface of the natural rock. Through the floor of these vaults a cistern is reached, cut in rock to a depth of 30 feet. It lies under the line of the building (apparently a church) with an apse, above-mentioned. Its measurement east and west from one rock wall to another is 55 feet; north and south it measures 12½ feet, but the north wall is of masonry, with four piers standing on rock bases supporting arches; the spaces between the piers have been filled in with masonry after building, probably at a later period. A flight of twenty-four steps leads down into this pool from the east scarp.

The church or chapel was probably built at a later period, when the surface level was within 6 or 7 feet of its present height, after an accumulation of 10 feet of earth over the rock, which, as we shall see, seems to have been still visible in 1172 A.D. This is also indicated by the position of the walls, over the pool. The vaults from the rock surface were no doubt constructed to bear the floor of the new church.

What is, however, of still greater importance, Herr Schick has found a second pool to the west of this, forming what is called a twin pool. The

Subscribers can have the whole set, together with Hull's "Mount Seir," and Names and Places, for 32*s.*, carriage free.

Mr. Armstrong has prepared a list of the photographs belonging to the Society, arranged alphabetically according to those Bible names which are illustrated by views. This list is now ready. Those who wish for a copy may send in their names.

The income of the Society, from March 21st to June 21st, 1888, inclusive, was—from subscriptions and donations, £264 18*s.* 1*d.*; from all sources, £447 5*s.* 5*d.* The expenditure during the same period was £662 7*s.* 11*d.* On June 21st the balance in the Banks was £224 3*s.* 10*d.*

Subscribers who do not receive the *Quarterly Statement* regularly are asked to send a note to the Secretary. Great care is taken to forward each number to all who are entitled to receive it, but changes of address and other causes give rise occasionally to omissions.

While desiring to give every publicity to proposed identifications and other theories advanced by officers of the Fund and contributors to the pages of the *Quarterly Statement*, the Committee wish it to be distinctly understood that by publishing them in the *Quarterly Statement* they neither sanction nor adopt them.

The only authorised lecturers for the Society are—

(1) Mr. George St. Clair, F.G.S., Member of the Anthropological Institute and of the Society of Biblical Archæology.

His subjects are:—

(1) *The General Exploration of Palestine.*
(2) *Jerusalem Buried and Recovered.*
(3) *Buried Cities, Egypt and Palestine.*
(4) *Buried Cities of Mesopotamia*, with some account of the Hittites.
(5) *The Moabite Stone and the Pedigree of the English Alphabet.*

Address: Geo. St. Clair, Bristol Road, Birmingham, or at the Office of the Fund.

(2) The Rev. Henry Geary, Vicar of St. Thomas's, Portman Square. His lectures are on the following subjects:—

The Survey of Western Palestine, as illustrating Bible History.
Palestine East of the Jordan.
The Jerusalem Excavations.
A Restoration of Ancient Jerusalem. Illustrated by original photographs shown as "dissolving views."

(3) The Rev. James King, Vicar of St. Mary's, Berwick. His subjects are as follows:—

The Survey of Western Palestine.
Jerusalem.
The Hittites.
The Moabite Stone and other monuments.

(4) The Rev. Thomas Harrison, Surbiton.

POOL OF BETHESDA.

I.

Recent Discoveries in Jerusalem.

After the Crimean War in 1854 the Sultan presented to the Emperor Napoleon the ruined Mosque called Salahieh, and other ruins adjoining which are situate near St. Stephen's Gate, and north of the Birket Israil.

This Mosque was originally the church of St. Anne, built in the Romanesque style, with a convent for Nuns. Salah-ed-Din on taking Jerusalem converted it into a Muhammedan school, and it was then subsequently known as "Salahieh," signifying the place or institution of Salah; in the course of time it lost much of its importance and gradually ceased to be a Muhammedan School, but Muhammedan cadets to the present day still attend for instruction by the Roman Catholic Arabic-speaking monks.

The French Government, on taking possession, restored the church, cleared the ground round about, and erected some new buildings and gave them over to the Algerian monks, who speak Arabic, wear white woollen habits—and a red tarbash or Arab cape. They belong to one of the many religious orders of the Roman Catholics, the name of which I do not know. They also established a school for native boys, and have carried it on for a series of years, having now about 30 boarders.

On clearing the place and removing an accumulation of rubbish, several important discoveries were made, one of which was a deep cistern (so-called at the time) with steps leading down into it, but was very seldom shown to strangers or others, the object being to acquire the adjoining property first; this has been accomplished and the cistern or pool is now open to visitors.

I deemed it advisable to make a plan of the whole place, noting on it all what appeared to me to be of interest in an archæological point of view.

No. 1 is a plan of the whole place, with full details given as correctly as I possibly could obtain them. The line of the deepest points of the valley, according to Sir Charles Warren's rock contours, are also shown.

No. 2 is a section from west to east of the more northern part, showing the cistern or pool, the Church of St. Anne, and the city wall, and also the lie of the rock.

No. 3 is also a section from north to south of the western part, showing the cistern or pool and its connections, the elevation of the church, the court, the new building in course of erection, the recovery of the continuation of the conduit, the street called Tarik Sitti Maryam, and the Birket Israil.

The contour or lie of the rock differs in some small degree from that of Sir Charles Warren's.

I have inserted on the two sections drawings of fragments of masonry found on the spot, with scale, &c.

I will now describe the various parts under special headings, inserting reference letters and figures when necessary.

The Conduit or Passage.

Some weeks ago, having learned that the Arabic-speaking priests and monks at the Salahieh (St. Anne's Church and place) had begun to erect a new building, and in clearing for the foundation found a conduit, I went the next day to see it if possible. The foreman of the work showed me the line of the conduit and described its condition, but as it was walled or covered up, I was unable to see it then; however, an opportunity occurred in a few weeks, and I am now able to give the following description.

It runs nearly parallel with the northern wall of the Birket Israil, the later traditional pool of Bethesda, but nearly 80 feet north of it, continuing westwards under the building on the north side of the street Tarik Sitti Maryam to the street Suk Bab Hytta, where it is full of *débris*, and belonging to a different proprietor. I was unable to excavate any further west.

To the eastwards it was cleared out a long way; a man can easily walk in it. It is 2 feet 3 inches wide, with an average depth of 7 feet 6 inches. The sides are constructed of hewn stones, of good size, each layer one foot or more high, and in some places covered with thick flagging stones, in other places with a kind of an arch, consisting only of two stones placed in a slanting position one against the other. I could not positively decide in my own mind which of the two coverings is the oldest.

Eastwards it goes 150 feet to the building erected about fifteen years ago, where the passage was then observed for about thirty feet more, and was partially destroyed in digging the foundations.

The foundation of the new building as well as of the old is not laid on the rock, but on a layer of concrete.

The surface of the rock is very deep here.

The bottom of the conduit at the eastern part is seventeen feet below the surface or about 2,389 feet above the Mediterranean Sea.

In the "Recovery of Jerusalem" (page 178) Sir Charles Warren describes a similar passage which he found outside the city wall, and giving its level to be 2,390 feet; it is evidently quite clear that the one now found is a continuation of it. I have connected the continuation with dotted lines by a round bend, as I scarcely think it would be a sharp one (*see* Plan I). Sir Charles Warren believed that the portion of the drain or passage outside the city wall was for the overflow of the Birket Israil, and leading from its north-eastern corner, which is now evidently clear was not the case, but that it may probably have been a sewage drain coming from the fortress of Antonia and neighbourhood, and draining off into the Kedron Valley. During the progress of clearing away for the foundation of the new building, and over the conduit, several stone water spouts were found, which is strong evidence that other drains led into the main one.

As the sloping is always higher than the flat covering, I think the latter is the older of the two.

No. 4 are drawings of one of the waterspouts; A is a section, B shows the length and side view, and C is a view in perspective. It will be observed that the square part was intended to be built in the side or wall, leaving the projection into the drain about 9 inches.

Fragments of Carving.

When the ground surrounding the church of St. Anne was being cleared of the ruins, columns, capitals, bases, and mouldings were found, and are now piled up in a heap opposite to the entrance to the church. I give sketches of a few—Nos. 5, 6, 7. No. 5 seems to be the most curious; it is three steps cut out of a hard reddish stone, with the cross of St. John cut out on three of its sides. On the right and left sides they (the crosses) are of equal size, with a ring round them; the other side has the same arrangement, but the cross is larger and higher up. The steps are 1 foot 4 inches long and $9\frac{1}{2}$ inches broad; the two upper ones are 9 inches in height, the lower one 1 foot 4 inches, making the total height of the stone 2 feet 10 inches. On the sides of the steps is a $2\frac{1}{4}$-inch rim, on which apparently stood a metal railing, the holes in which the rails were fastened being still visible. The question arises, What was this stone with the three steps used for? My opinion is that it stood in front of a font for the use of those persons who were about to be baptized. Or it may have been the steps to a pulpit or altar. The crosses indicate that it was used in the Middle Ages. The workmanship is good and well preserved.

No. 6 is a column in several parts, exhibiting good workmanship, put together and erected 28 feet from the north-west corner of the church of St. Anne. On the base (which is made of the same reddish stone as No. 5) is a panel with a cross in relief, exactly the same as in No. 5, and exhibiting the same kind of workmanship, but the mouldings above are of a different stone, and differently worked from that of the base; the pillar is apparently much older, is 21 feet 8 inches long, and 1 foot 8 inches in diameter. The capital is of marble, and is in a good state of preservation, but not rare.

No. 7 is a carved marble stone; the thick black lines are about half an inch wide, with a deep groove, having flute and cornice-shaped bands. Ornaments of a similar kind are often found with bands in relief, entwined at right angles, but this one with deep grooves and cornice-shaped is rare. The stone is about 8 inches thick, 2 feet 10 inches long, and 1 foot 2 inches broad, only a fragment of its former size.

The Church of St. Anne.

Vogue's Plans of the church of St. Anne in "Les Eglises de la Terre Sainte," Paris, 1860, like many others which I have seen, are far from being correct. The building is shown as being regular, whereas it is irregular, which can be seen at a glance of the plan which I made

(No. 1). The church, as it now stands, has many irregularities. In the east it is narrower than in the west; the side aisles are different in length, and slightly different in width. The buttresses in the northern wall project much more and stronger than those in the southern wall; the reason for this is difficult to account for. Each of the four buttresses in the western front differ in detail from one another, which is very strange, and this fact is not indicated on any of the plans I have seen.

The church is now surrounded by a paved court, bounded on the north and east by high walls, on the south by houses, and in the west by gardens and walls, and low buildings. (See Sections.) The rock-cut caves under the church are now connected, but formerly were not so. The eastern one resembles the bottle-shaped cistern; the western one, a vault, is the reputed lodging of Joachim and Anne, the parents of the Virgin Mary.

Ancient Tower.

When clearing the place round the church, the architect, Mons. Maux, found this old tower, and cleared away the part projecting into the French property on the east side, and 21 feet 6 inches distant from the church. It was originally 76 feet long from north to south, and 62 feet broad from west to east, extending to the present city wall. Those measurements are approximate to those of the "Tower of David," and also the tower in the north-east corner of the Haram esh Sherîf. The stone material used in this old tower I am unable to describe. From the configuration of the ground it would appear to have stood on the top of the ridge, and very probably on the eastern side of the tower a rock, scarp, or ditch may be found, but without excavating it is quite impossible to say. As to the object of this tower there is no evidence to produce; but I think it cannot date further back than the period of Agrippa, in the first century of the Christian era. There is some probability that the belfry of which Blackburn writes stood on this tower: "Era anesso anche el suo Campanile ma non resta di esso se non il primo ordine," 91 (Tobler, "Top. Jerusalem," Berlin, 1853, page 428), which I think to be the case. If so, the ditch or rock-scarp would be east of the tower, and the same as that of the present town wall.

The Pool of Bethesda.

From the court west of the Church of St. Anne, and opposite the north-western angle, is the entrance to a passage, newly opened up, 24 feet in length, which leads into a court of about 50 feet square; the surface is very uneven, consisting of rubbish and ruins, sloping towards the north-west. On the east side of this court is a large arched room, open towards the west, marked 8 on Plan I; it is half full of earth; the masonry is Crusading. The north wall of this chamber is 6 feet 3 inches thick, in which is a wide door and short passage, with two steps leading down to a row of narrow (only 9

feet wide) rooms ; traces of the eastern two are still visible, the three to the west being buried under rubbish. The monks, in digging along the western end of the court, came upon the wall between the fourth and fifth room, exactly of the same thickness as that between the first and second (the eastern two) ; this is evidence that there were five rooms of equal size, each 9 feet wide and about 14 feet long ; the exact length I could not decide, as there are no traces visible to show the southern ends of the walls. It seems that towards the south the halls or porches were open with a narrow passage in front of them, as indicated in Plan No. 1. The half-circled barrel arches of these vaults or porches were 13 feet in height in the centre ; each vault had an arched window in the northern wall, which seems to prove that they looked into an open street or passage, 11 feet in breadth, but which is now covered by a half-circled barrel arch in its whole length ; the wall in which the windows are is 2 feet 8 inches thick, but the thickness of the one opposite I could not obtain. Now on the top of these vaults a church once stood, the apse of which in the east is to a great extent preserved as indicated in Plan I, and Sections 2 and 3. The church was evidently not large, for, without the apse, only 20 feet wide (inside measurement), and, from an indication in the northern wall, seems to have been only 20 feet long. In the northern wall some stones are seen projecting ; I rather think these did not belong to the western end of the church, but that the church and ante-church extended over all the five vaults, for there is, a little to the west of the stones projecting in the same north wall, a very nicely shaped recess, such as are always found near the altar or font, so I imagine that over the middle porch stood the font, and this outer or ante-church was the baptisterium of that period. When the church was in use the font would be above the centre of the pool below, and the apse over the cistern, on the higher rock, which is 14 feet deep (*see* Section 2). A narrow door on the northern side of the apse leads to a small chamber, in which is the mouth of the cistern (*see* Plan I).

The flooring of the apse has disappeared, and is grown over with grass ; to the north and on higher ground are some Moslem houses, of only one storey high, in a bad state of repair.

Having explained all this, which is visible by day, it is time to light candles and go down below, descending by steps leading to the flooring of the porches; over two high steps (9, Section 3) a wooden ladder is placed, and resting on a flat place marked 10 on Plan I, connecting the head of a flight of steps (marked 11 on Plan and Sections) which lead 19 feet down to a tank, containing, even to-day, some water. The bottom of it is partly uneven and sloping towards the west ; the steps end where the bottom is highest and dry when the water is low.

The west, south, and eastern sides of the tank are cut in the rock to the greater part of its depth, and are perpendicular. The northern side is a wall.

The general level of the bottom at the foot of the stairs is 2,359 feet above the Mediterranean Sea ; the top of rock on west side is about 2,373

feet (could not obtain exact level), the south side is 2,376 feet, rising a little more, and on the east side it rises up to 2,390 feet.

As Sir Charles Warren's contour (marked 12 on Section 2), giving 2,369 feet, passes only about 10 feet west of the tank, and comparing it with the heights of the rock on the other side of the valley, it is clear that the water course is actually about 20 or 25 feet more west, as I have shown in Section 2 (13). Probably, on the eastern slope, there had been originally a cliff or precipice.

The pool is now 55 feet long, but this was most probably the breadth, and 12 feet 6 inches of an average in width ; but, apparently, towards the north it extended much farther, as the present northern wall was subsequently built, for it does not appear to belong to the original work, excepting the round bases of the five piers, which are hewn out of the living rock. These bases are not all of equal height, but about 2½ to 3 feet each above the bottom of the pool, having a diameter of 3 feet 2 inches. On these once stood round pillars, with the exception of one (the second from the west) which is square and walled in, and having a diameter of 3 feet. As regards the height of these pillars we may conclude that they would be about the same elevation as the surrounding rock ; the roofing was probably constructed of long flat stones stretching from pillar to rock, on which perhaps the five porches mentioned in John's Gospel, v, 2, were erected.

The five porches with the roofing and the pillars were destroyed, and on a restoration square piers were built of hewn stones in place of the pillars, and arched across over the tank (14). On top of the tank roof (14) barrel arches (15) were built. Such is my reasoning of the plan of erection with the five porches from the traces (16) that exist at the present day (compare Plan I, Sections 2 and 3). Later on, the openings between the piers were shut up with walls, as the masonry of these walls is not connected with the masonry of the piers.

I was told that there is always some water in the cistern, but the source from where it comes I could not ascertain.

The steps leading down into the pool are not the original ones, they are neither ancient nor modern ; they are built, and the original ones were certainly hewn out in the rock, as we generally find them in cisterns ; they vary in their height and width, and have apparently been several times repaired. There is an iron railing which is quite modern ; besides the two large ones, I counted twenty-four regular steps.

The bearing of the tank below differs slightly with that of the porches above. The bearing of the church of St. Anne is somewhat curious too.

From the examination of the details on the ground now described, I am under the impression that the cistern is the Pool of Bethesda ; at least it was the place which in the Middle Ages was considered to be the Bethesda.

I now append a short history of the Pool of Bethesda :—In the Old Testament the Pool of the Bethesda is not mentioned, but in the New Testament, St. John v, 2, we read, " There is at Jerusalem by the sheep

market, or gate, a pool, which is called in the Hebrew tongue Bethesda, having five porches" (in Neh. iii, 1, "Sheepgate"). The pool was near the Sheepgate; the Sheepgate was north of the Temple, which I believe to have been under the Harem Area, and a little south of Bab el 'Atm, or Hytta; and the pool, now examined for the first time, is north of the Harem Area, and in the neighbourhood where the Christians always thought it to be, though in later times, when it got buried up in ruins and *débris* and lost, the name Bethesda was applied to the Birket Israil. In the 4th century the "Bordeaux Pilgrim" writes: "There are two great pools at the side of the Temple, one on the right and the other on the left, made by Solomon." As it appears he came in by St. Stephen's Gate, and proceeded westwards, he would have Birket Israil on the left, and the one now discovered and examined on the right, near the church of St. Anne. Continuing along the street, he came to the "twin pools," which are outside the north-west corner of the Harem Area and under the new convent of the Sisters of Zion, and calls them Bethsaida = Bethesda, and mentions the five porches and the sick that were healed there; also notes the red colour of the water—and so does Eusebius—"that in one it was red, and the other it was rain water." But, as both pools, under the "Sisters of Zion," are so closely connected, the water in them both must have been always of the same colour—rain water, coming from a distance over the surface of the ground, is at the moment always red. If in the 4th century the "twin pools" were wrongly called Bethesda, the name later on was transferred to the one (the real Bethesda) now recovered, and which the Bordeaux pilgrim says was on the right hand. After the church of St. Anne and the convent were built the proper name was then renewed to the pool, which has since always been stated to be near to the church of St. Anne. Williams, in "The Holy City," p. 484, came to the same conclusion, that the lost pool (Bethesda) would be found near the church of St. Anne.

The pilgrims, in their accounts of Jerusalem, generally describe the pool with the five porches over it as being near the church of St. Anne. In later times, when the situation of the pool was lost, and spoken of as having two porches, the name was transferred to the Birket Israil, which is also near the church of St. Anne.

Gumpenberg, in the 15th century, notes that there were twenty-three steps leading down to the water, which can only be applicable to the one now recovered, which has twenty-four steps to the bottom; but very possibly in Gumpenberg's time the water was a foot higher. Tschudi gives thirty-three, but the two large steps over which is now placed a wooden ladder would make ten regular steps, which would account for the thirty-three. The Birket Israil would want at least seventy steps.

"The Holy City," by Williams, I do not possess a copy of, but I know he states that the natives speak of underground springs and large tanks in the neighbourhood of the church of St. Anne.

In closing this report I only wish to add that the Birket el Hedjeh, outside the city wall and east of Bab es Sahire (Herod's Gate), is only 700

feet north of the pool and in the same depression of ground, and may have been connected.

If the Bethesda extended farther north and under the present houses, the distance between the two would not be very great—about the same as that to the Birket Israil. I am convinced that we have in this pool, which has lately been discovered, the Bethesda of the mediæval times, and would hail with delight any notes from the Pilgrims and others appended to clear up and confirm the matter.

C. SCHICK.

JERUSALEM, *5th April*, 1888.

II.

SOME weeks ago I forwarded a plan and sections of the quarter in Jerusalem called "Salahieh," showing the newly discovered pool with traces of five porches or chambers over it. Since then further excavations have revealed another cistern or pool.

In order to understand what I have now to say, I enclose three small plans which, when put together, show the three storeys, the second pool, and the one already reported on; also a section.

The plans are marked A, B, C, D.

A.—When I revisited the place again I found that I had made some mistake in laying down on the plan the direction of the tank from the bearing I had taken, which is now corrected as shown.

B.—Is a plan of the probable, or what I suggest, five porches or chambers, the remains of the two eastern ones being covered up, and also the western one, the arches being all broken down. The walls between the chambers were apparently not entire, but partly arched, and communicating one with the other.

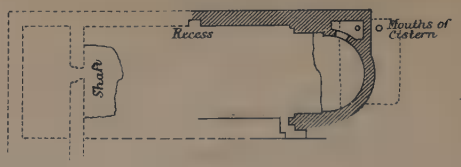
In digging through the western one, which is full of earth, and the arch fallen in, a rather low arch was found on its western side, belonging to a more recent period, evidently erected for the support of the present wall of the chamber over it. In the latter wall was found an opening, or doorway—a view of which I give on Plan E. This doorway was well made, and in front of it (west) was formerly an open passage (*i*). Another and wider passage came from the east, into which the windows of the porches or chambers opened, but both are now covered up. There may possibly have been a similar passage from the west, a continuation of *l*, *k*, but no indications of it were found. The masonry marked *a*, *b*, is apparently of the same period as the apse of the little church already mentioned.

The passage marked (*i*) is peculiar from its having a rock-scarp at its southern end, which surprised me very much to find, the rock rising to such a height. Consequently the rock is much higher than I at first observed (Section 2).

It seems that the shoulder wall on the west side is also rock, as shown in Plan B and Section 2. Behind the rock wall or scarp is a very thick wall built of small stones; a hole, see Plan B and Section 2, was made

PLAN OF THE CHURCH.

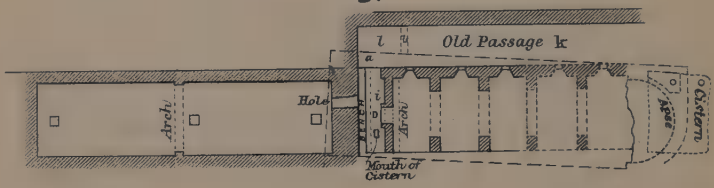
C.



Shaded portions Crusading

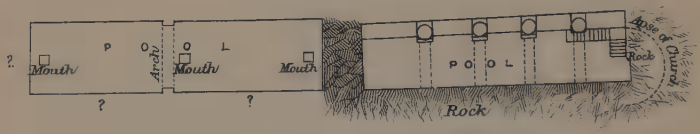
PLAN OF
THE PROBABLE 5 CHAMBERS & WESTERN POOL.

B.



PLAN OF THE TWO POOLS

A.

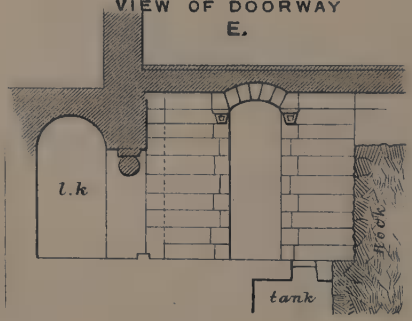


SCALE $\frac{1}{500}$

10 0 10 20 30 40 50 60 70 80 90 feet

VIEW OF DOORWAY

E.



SCALE $\frac{1}{1000}$

10 5 0 10 20 30 feet

Vincent Brooks Day & Son lith

in this wall, and a labourer from the village of Selwan crept in to see what was behind. He returned very quickly and died soon after, either from fright (he said that he had seen a large serpent) or from the impure air.

When I heard of this I immediately went to the place, and examined and measured the hollow or tank, but observed no serpent or anything strange, and found it to be an arched tank or cistern, tunnel-shaped, about 16 feet 6 inches wide. I could not measure it exactly at the springing of the arch, as there is so much earth. The length, from the thick wall westwards, I ascertained to be 64 feet, and about the middle of it is a special arch or girder built of hewn stones, on which the wall of small stones rests.

This second pool or cistern has three mouths—one in the centre, near the special arch, and the other two near the end walls.

I could not obtain the correct bearing or direction of the side walls, but they appeared to be running in the same line as those of the five chambers or porches, apparently of the same depth (probably deeper) and width.

On the flooring of the passage (*i*) south of the doorway is a small mouth to the pool below.

On the north end of the passage (*i*) is a badly built-up door, the lintel being a pillar, leading to a little room (*l*) of no special interest, but it was formerly part of the passage (*k*).

The size of the cistern east of the five porches or chambers, and under the apse, I have not ascertained, but think that it must extend as I have shown it on plan in a dotted line.

It has two mouths, one in the little side chamber of the apse of the church, and the other to the east of it, in the courtyard of a Moslem house.

C.—Is a plan of the little church over the vaults, &c., and the position of the shaft which the monks sank for their excavations, and which I have explained were found.

D.—Is a part of Section 2, already submitted, showing the corrections, the second tank or pool, and the passage (*i*) with the well-made doorway. The wall in which it stands is only 1 foot 9 inches thick, and has, 11 feet from the flooring, two nicely-carved corbel stones projecting about 1 foot; the wall above then becomes thicker. The passage (*i*) was formerly open, and on its flooring is a mouth to the tank or pool underneath, and it seems that the bottom here consists of rock or, it may be, very large flat stones, similar to the "pavement" described in the *Quarterly Statement*. The south wall seems to consist of rock, rising to a considerable height, as shown in Section 2, similar to the lower part of the tank wall, then forming a kind of bench 1 foot 8 inches broad, as shown in B. Behind is the 6-foot thick wall through which the hole was broken.[1]

[1] All embodied in Section 2 and Plan B.

E.—A view of the well-made door with projecting corbels.

In conclusion, I wish to state that further examinations will bring more details to light, consequently some of my suggestions or explanations may be wrong. However, I record what I have seen, and submit it for consideration.

May 9th, 1888. C. SCHICK.

III.

From the "Bordeaux Pilgrim" (Appendix III), published for the Palestine Pilgrims' Text Society.

THE questions connected with the Pool of Bethesda are of so much general interest that it has been considered desirable to treat them at some length.

The Name.—(1) In the Authorised Version (John v, 2) the pool is said to have been called in Hebrew Bethesda (Βηθεσδά), as if "house (place) of mercy," or perhaps, as suggested by Reland (856), the "place of the pouring forth" of water.[1] This reading is supported by the high authority of the best known Syriac text, the Peshito; it has also respectable support in MSS. and Versions, and internal evidence pleads strongly for it. The complete absence of any allusion in non-Christian writers to such a pool makes it very likely that its name is an invention of the Evangelist, and, if so, Bethesda was the one likely name for him to choose (Späth. "Protestn. Bibel ad Joann.," v, 2). The weight of MS. authority is, however, undoubtedly against the reading Bethesda; and the Revised Version gives, in the margin, the alternative readings Bethsaida and Bethzatha.

(2) The reading Bethsaida (Βηθσαιδα), "a fishing place," is supported by the Vatican and Vulgate texts, and by the Syriac Version revised by Thomas of Harkel (616 A.D.); it is also the form used by the Pilgrim of Bordeaux. This name, however, which might naturally be given to a town on the shore of the Sea of Galilee, is scarcely applicable to an open reservoir crowded with bathers.

(3) The reading Bethzatha (Βηθζαθά), "place of olives," is supported by the high authority of the Sinaitic text, and it is the form used by Eusebius in the "Onomasticon" (*s. v.* Βηζαθά), where a *θ* has dropped out. The Belzetha (*Βελζεθα*) of the Cod. Bez. is also a corruption of the same word.

(4) The name Bezetha (Βεζεθα), by which Josephus distinguishes the hill north of the Temple, is merely a different form of Bethzatha (Βηθζαθά);[2] and it may be suggested as possible that the pool derived

[1] With this may be compared the Arabic *Beit el Ma*, "place of water"—a name applied to springs near Antioch, and at *Nâblus*.

[2] In the LXX we occasionally meet with Beth (Βεθ) instead of Βαιθ, or Βηθ, as in Βεθγεδώρ (Vat.), 1 Chron. ii, 51; Βεθσούρ (Alex.), Josh. xv, 58, etc. The *θ* also sometimes disappears, as in Βαιφαλάθ (Vat.), Josh. xv, 27, and Βαιμών (Vat.), Jer. xlviii, 23; and in Syriac and Chaldee the final "th" may be and is

its name from the hill, and was known as the "Pool of Bethzatha" (Bezetha). In connection with this suggestion it may be remarked that the "Pool of Siloam" is supposed to have been so named from the rock-hewn channel which conveyed to it the waters of the Fountain of the Virgin.

(5) In John v, 2 (R.V.), the Pool of Bethesda is said to have been "by the sheep-*gate*," where the word "gate" is supplied. Eusebius, however, in the "Onomasticon," calls Bethesda "the sheep-pool," and all other writers follow him. Chrysostom, quoting John v, 2, reads προβατικὴ κολυμβήθρα, "sheep-pool;" and this agrees with the reading of the Sinaitic Version, as well as with that of the Vulgate, "probatica piscina." See also Athan., Cyril, &c., as quoted below.

Notices in Early Writers.—"Now there is in Jerusalem by the sheep-*gate* a pool, which is called in Hebrew Bethesda, having five porches (στοαὶ). In these lay a multitude of them that were sick, blind, halt, withered. [Waiting for the moving of the water, for an angel of the Lord went down at certain seasons into the pool, and troubled the water: whosoever then first after the troubling of the water stepped in was made whole, with whatsoever disease he was holden.[1]] And a certain man was there . . . I have no man, when the water is troubled, to put me into the pool."—John v, 2–7 (R.V.).

Bethesda, "a pool (κολυμβήθρα) in Jerusalem, which is the sheep-*pool*, formerly having five porches. It is now identified with the twin pools (ἐν ταῖς λίμναις διδύμοις), of which one is supplied by the periodic rains, whilst the water of the other is of a ruddy colour—a trace, they say, *of the carcases* of the sacrifices[2] which were formerly cleansed in it *before offering*, whence also it was called προβατικὴ, 'sheep-*pool*.'"—Euseb., "Onom." (*s. v.* Βηζαθὰ); 330 A.D.

"There was at Jerusalem a sheep-pool, which is still in existence; it had five porches (στοαὶ), but the structures surrounding it are now destroyed."—Athanasius (?), "De Semente;" Migne, xxviii, 164; 320 A.D. (?).

"Further in the city are twin pools (*piscinæ gemellares*), with five porticoes, which are called Bethsaida. There persons who have been sick for many years are cured; the pools contain water which is red when it is disturbed."—"Itin. Hieros.;" 333 A.D.

"The sheep-pool (προβατικὴ κολυμβήθρα) was in Jerusalem; it had five porches (στοαὶ), four surrounding it and one in the middle" (τέσσαρας μὲν περιτρεχούσας, μέσην δὲ τὴν πέμπτην).—Cyril of Jerus., "Hom. in Par.," § 2; Migne, xxxiii, 1133; 370 A.D.

"There is in Jerusalem a sheep-pool (προβ. κολ.) . . .," John v, 2, as quoted by Chrysostom, "In Joan.;" Migne, lix, 203. This reading agrees with the Sinaitic Version and the Vulgate.

dropped. No importance therefore attaches to the substitution of ε for η, or to the disappearance of the θ; and, so far as reasons of language go, Βεζεθά, Βηζαθά, Βηθζαθά, etc., may be different forms of the same word.

[1] In the margin only.

[2] Lit., of the "victims."

Jerome ("Onom.") agrees with Eusebius as quoted above ; 420 A.D.

"The pool which was once called sheep-*pool*."—Cyril Alex., "In Joan.," lib. 12 ; Migne, lxxiv, 636 ; 430 A.D.

"Bethesda is visible and remarkable by its double pool (*gemino lacu*) ; the one is commonly filled by the winter showers, the other is distinguished by its red waters."—Eucherius, "De Loc. Sanct. ;" 440 A.D.

"From the house of Pilate to the sheep-pool (*piscina probatica*) is more or less one hundred paces. There Christ cured the paralytic, whose bed is still there. Near the sheep-pool (or 'in the sheep-pool' according to some MSS.), where the sick wash and are healed, is a church of the Blessed Virgin."—Theod., "De Terr. Sanct.," viii ; 530 A.D.

"Returning to the city (from Aceldama), we came to a swimming-pool (*piscina natatoria*) which has five porticoes, and in one of them is the Basilica of St. Mary, in which many miracles are wrought. The pool itself is now choked with filth, and therein are washed all the necessary utensils of the city. We saw in a dark corner an iron chain with which the unhappy Judas hanged himself."—"Ant. Mart.," xxvii ; 570 A.D.

"I enter the holy Probatica (*προβατικὴ ἁγίη*), where the illustrious Anna brought forth Mary."—Sophr. ; "Anac.," xx ; Migne, lxxxvii, 3, p. 3821. In the same place the paralytic was cured, *l. c.*, p. 3823 ; 630 A.D.

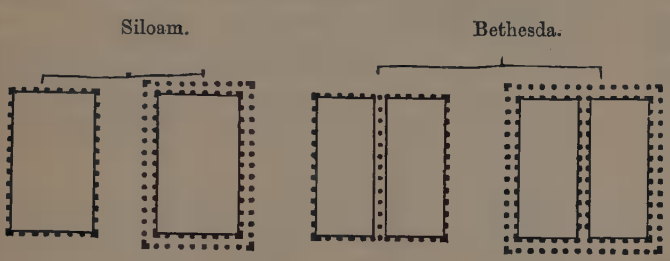
"Unto us is born, in the holy Probatica (*ἐν ἁγιᾷ προβατικῇ*), the mother of God," etc.—Joan. Dam., "In nat. B. V. Mar. ;" Migne, xcvi, 669. See also the curious apostrophe to the Probatica (*l. c.*, p. 677) and "De Fide Orth.," lib. iv ; Migne, xciv, 1,157 ; 730 A.D.

From the church of St. Sion, in the middle of Jerusalem, Willibald went "to the porch of Solomon, where is the pool where the infirm wait for the motion of the water, when the angel comes to move it ; and then he who first enters it is healed. Here Our Lord said to the paralytic, 'Rise, take up thy bed and walk.'"—Will., "Hod." xix ; 726 A.D.

A church of St. Mary, in the Probatica, where she was born ("Commem.," circ. 808 A.D.). The tract, "Qualiter sita est Civ. Jerusalem," supposed to have been written before the First Crusade, places the sheep-pool east of the *templum Domini* (Dome of the Rock), and outside the gate of the Atrium, which appears to have been conterminous with the Haram Area.

Nature of the Pool.—The Greek word κολυμβήθρα, "a swimming bath," translated "pool" in John v, 2, is used in John ix, 7–11, for the "pool" of Siloam, and in Josephus for the pools Struthion and Amygdalon ("B. J.," v, 11, § 4) and the pool of Solomon ("B. J.," v, 4, § 2) ; its equivalent in Latin is *Piscina*. These swimming baths, pools, or reservoirs were, as a rule, rectangular in form, and open to the air ; and they were often surrounded by columns or by porticoes (στοαὶ), in which the bathers undressed themselves and lounged before or after bathing. Siloam is said by the Bordeaux Pilgrim to have had four such porticoes, and remains of them have been found by excavation at the modern pool of that name. The Roman bath (*piscina*) at Bath seems to have had similar porticoes, and its appearance when perfect must have been not unlike that of the

Pool of Siloam. Bethesda had five porches, or porticoes, and much ingenuity has been expended on their arrangement. The explanation is very simple when it is remembered that Bethesda was a *double* pool; there was a portico on each of the four sides, and the fifth, as stated by Cyril of Jerusalem, was in the middle, between the two pools. It may be inferred from this arrangement that the twin pools were on the same level, close to each other, and not of any very great size. The porticoes of the pools of Siloam and Bethesda may have been on some such plan as those suggested below:



Position of Bethesda.—The Bible narrative indicates that Bethesda was in Jerusalem, and that it was an open reservoir having five porticoes. In the fourth century Eusebius, who gives no indication of position, speaks of the porticoes as having formerly existed; and the tract "De Semente" expressly states that they had been destroyed. Eusebius, moreover, says that the κολυμβήθρα was then identified with the twin λίμναι, as if some change had taken place in the character of the reservoir; and it may be remarked that Eucherius uses the word *lacus* instead of the usual *piscina*. The Bordeaux Pilgrim tells us that Bethesda was more within the city than two large pools at the side of (in the vicinity of) the Temple, which have generally been identified with the Birket Israil and the pool that formerly existed near the church of St. Anne. In the sixth century Theodosius says that the pool was about 100 paces from the house of Pilate, which he and Antoninus identify with a church of St. Sophia, apparently not far from, if it be not the same as, the "Dome of the Rock."

The general tenor of these accounts seems to indicate that Bethesda was identical with the twin pools now known as the "Souterrains" of the Convent of the Sisters of Sion. We have here two pools cut in the rock, side by side, with a partition 5 feet wide between them, and covered by vaults. The total length is 165 feet, and the breadth 48 feet, and a never-failing supply of water enters at the north-west corner. The pools are peculiarly situated in what must have been the rock-hewn ditch between Bezetha and the fortress of Antonia, and this may have led to the name "Pool of Bezetha or Bethzatha," as suggested above; their position with regard to the Temple would also have been convenient

for washing the "victims" offered on the altar.[1] The source from which the pools derived their supply of water is unknown, but an aqueduct has been found running into the western pool from the north; and there may also have been one of those "drifts" or rock-hewn tunnels for the collection of water, of which there is an example in the Wâdy Biyar, near Solomon's Pools. Water running into the pool from such a drift would naturally carry with it and deposit some of the red earth of which the soil north of Jerusalem is composed, and this, when disturbed, would produce the ruddy colour noticed by Eusebius and the Bordeaux Pilgrim. With regard to the movement of the water, which appears to have taken place at uncertain intervals, it is now generally accepted that the passage attributing the disturbance to the intervention of an angel is spurious; we know nothing of the times and circumstances under which the movement occurred, and can only suggest that it may have been caused by an intermittent flow of water from the aqueduct or "drift." During the rainy season, and for some time afterwards, there would be nothing unusual in such an intermittent flow.

Mons. Clermont-Ganneau[2] has identified these souterrains with the Pool Struthion of Josephus, at the side of which Titus erected one of his mounds against the fortress Antonia; and he explains the meaning of the name Struthion to be "the sparrow's pool," that is to say, the little pool, by a sort of popular *sobriquet*. It seems, however, more probable that in this case the word Struthion means "soapwort," and that the name "Soapwort Pool" was connected with the plant used for cleansing the wool of the sheep used in the sacrifices. There would thus seem to be a connection between the "Soapwort Pool," the "Sheep Pool," and Bethesda, and they were possibly different names for the same pool.

The history of the pool appears to have been somewhat as follows: When Titus erected his mound against Antonia the porticoes were destroyed; and on the rebuilding of Jerusalem, as Ælia Capitolina, the open pool (κολυμβήθρα) was transformed into a closed reservoir (λίμνη). The pool gradually became choked with filth, and at some period prior to the Crusades the site of Bethesda was transferred to the pool near the church of St. Anne. The general aspect of the pool before the destruction of the porticoes is indicated in the subjoined sketch, for which I am indebted to Captain Conder, R.E.[4]

The Pool of Bethesda, or *Piscina Probatica*, is now identified with the Birket Israil, but this identification does not appear in any writer

[1] The lambs for the daily sacrifice were kept in one of the chambers of Beth Mokadh at the north-west corner of the Temple court.—Lightfoot, "Prospect," xxix.

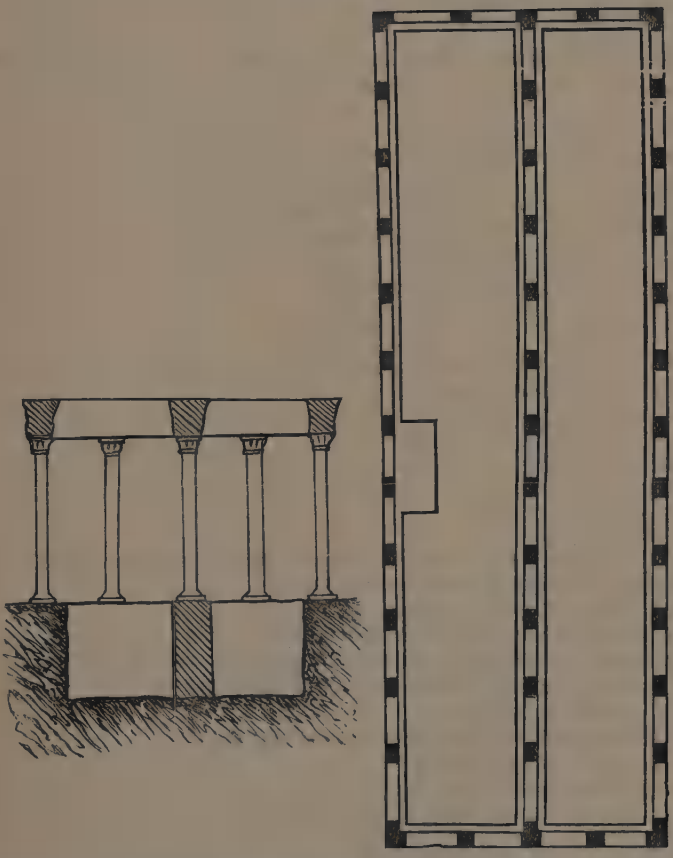
[2] See P.F. *Q.S.*, 1872, pp. 47-51; and, for a description of the souterrains, "P. F. Mem.: Jerusalem," pp. 209-212.

[3] P.F. *Q.S.*, 1871, 106.

[4] It is quite possible that the whole extent of the pool has not yet been discovered, and that it may have had a greater width than is shown on the plan.

before Brocardus (1283 A.D.). The earlier historians of the Crusades applied the name *Piscina Probatica* to a large reservoir adjacent to the church of St. Anne, which is now completely covered up and lost. This pool and the Birket Israil are generally supposed to be the two large pools alluded to by the Bordeaux Pilgrim as being near the Temple (*ad latus templi*) ; and William of Tyre (viii, 4) states that their water

SIR C. WILSON'S PROPOSED RESTORATION OF THE TRADITIONAL POOL OF BETHESDA.



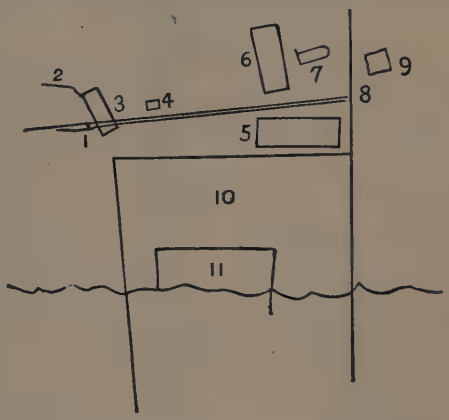
supply was brought by aqueducts from without the city. The Birket

[1] In the "Citez de Jerusalem" a spring is mentioned in front of St. Anne; Brocardus and others allude to water in the upper pool; and Sandys saw water, which must have come down the valley, trickling through the north wall of the

Israil is situated near the mouth of the valley which runs into the Kedron, south of St. Stephen's Gate ; the other pool is higher up the same valley, and must therefore be at a higher level ; it is clear, then, that no arrangement of five porches, such as that described above, could have existed, and that these pools cannot represent the Bethesda of Eusebius and the Bordeaux Pilgrim.

Dr. Robinson's suggestion that Bethesda may have been at the Virgin's Fountain in the Kedron Valley is hardly tenable, for there is no trace or tradition of anything that could be called a κολυμβήθρα in that locality.[1]

Sketch showing Position of Pools north of the Haram Area.



1. Ecce Homo Arch.
2. Aqueduct.
3. Souterrains at the Convent of the Sisters of Sion; Struthion of Josephus; Bethesda of fourth century.
4. Church of the Flagellation.
5. Birket Israil ; the modern Bethesda.
6. Supposed position of the mediæval Bethesda.

5 and 6. The two large pools of the Bordeaux Pilgrim.

7. Church of St. Anne.
8. St. Stephen's Gate, or Gate of the Lady Mary.
9. Pool of the Lady Mary.
10. Haram Area.
11. Platform of the Dome of the Rock.

Birket Israil. The source from which this water came is an interesting subject for speculation; it was probably to the north of the city, and the same as that which supplied the souterrains at the Convent of the Sisters of Sion, and the reservoir at the Church of the Flagellation.

[1] It may be remarked that the Jews, at the present day, bathe in the Virgin's fountain when the water rises, as a cure for rheumatism.

Church of St. Mary.—Before leaving the Pool of Bethesda a few words seem necessary on the curious tradition which places the birthplace of the Virgin in close proximity to the pool, or, according to some writers, in one of its porticoes. The earliest notice of this tradition is in Theodosius, 530 A.D., and it is scarcely necessary to add that it rests on no foundation. The legend appears to have originated in that desire to localize all the events of the Virgin's life (*e.g.*, her death in the "Mother Church of all Churches" on Sion) which grew up in the fifth century after the Council of Ephesus; and we should probably not be far wrong in attributing it to Juvenal of Jerusalem. The modern Church of the Flagellation apparently occupies the site of the original Church of St. Mary; and when Bethesda was transferred to the pool near the Church of St. Anne the birthplace of the Virgin was found in the grotto beneath that church.

It is perhaps worthy of remark that the Arab name of the Church of St. Anne is *Beit hanna*, "House of Anne," an expression which is exactly identical with Bethesda, both signifying "House of Mercy." The Mary legend has also left traces in the Arab nomenclature of this portion of the city; as *Bab Sitti Maryam*, "Gate of the Lady Mary" (St. Stephen's Gate), and *Birket Sitti Maryam*, "Pool of the Lady Mary," outside the walls.

C. W. Wilson.

N.B.—The recent recovery of a portion of the mediæval Pool of Bethesda in the immediate vicinity of the Church of St. Anne, and the probable existence of a second pool beside it, is in favour of the view that the Pool of Bethesda, of Eusebius, was in this locality. Some other explanation must, however, be found in that case for the description of the Bordeaux Pilgrim, which I have supposed to refer to the twin pools beneath the Convent of the Sisters of Sion.—C.W.W.

IV.

A new discovery of great interest has just been reported by Herr K. Schick, namely, that of a large tank to the north-west of St. Anne's Church, about 100 feet distant. Crossing a courtyard and entering by a narrow passage, a building, measuring about 70 feet east and west, by 25 north and south, with an apse at the east end, is found. Its floor (about on the level 2,400) is some 7 feet below the general surface of the courtyard. Under this building are vaults about 10 feet deep, the floor level being that of the surface of the natural rock. Through the floor of these vaults a cistern is reached, cut in rock to a depth of 30 feet. It lies under the line of the building (apparently a church) with an apse, abovementioned. Its measurement east and west from one rock wall to another is 55 feet; north and south it measures 12½ feet, but the north wall is of masonry, with four piers standing on rock bases supporting arches; the spaces between the piers have been filled in with masonry

after building, probably at a later period; and Mr. Schick supposes the pool to have extended further in this direction, perhaps in five arcades or porches between the piers. A flight of twenty-four steps leads down into this pool from the east scarp.

The church or chapel was probably built at a later period, when the surface level was within 6 or 7 feet of its present height, after an accumulation of 10 feet of earth over the rock, which, as we shall see, seems to have been still visible in 1172 A.D. This is also indicated by the position of the walls over the pool. The vaults from the rock surface were no doubt constructed to bear the floor of the new church.

In a note on the Pool of Bethesda (*see* "Bordeaux Pilgrim," P. P. T. edition, p. 54) Sir Charles Wilson has indicated (No. 6 of the diagram) the position of the mediæval Pool of Bethesda just where the newly-discovered pool exists. He has also shown that the Bethesda of the fourth century A.D. was at the Twin Pools (No. 3 of his diagram), at the north-west angle of the Haram.

In an ancient map of Mediæval Jerusalem, published with Marino Sanuto's account of the city (1322 A.D.), a pool is marked north-west of St. Anne, and shown running east and west, or across the valley which here exists. The pool is that mentioned by Ernoul, in 1220 A.D., as the site of Bethesda, though in the second part the author inclines to the later identification of Bethesda with the Birket Israil — the modern Bethesda.

The following notices of the pools are of value in connection with the new discovery:

The Bordeaux Pilgrim (333 A.D.) speaks of two large pools near the Temple—one on the right, the other on the left—in addition to the Twin Pools which he identifies with Bethesda. He ascribes these two pools to Solomon (*see* P. P. T. edition of this pilgrim, p. 20).

In the Onomasticon (Eusebius and Jerome, 330–420 A.D.) Bethesda is said to have "formerly" had five porches, "but now is shown as a Twin Pool."

Theodosius (530 A.D.) places the Probatica Piscina (*i.e.*, Bethesda) near a Church of St. Mary. In 570 A.D. Antoninus Martyr (xxviii) apparently alludes to the Twin Pools as Bethesda. St. Willibald, in 723 A.D., only alludes to the "Porch of Solomon, where is the pool where the infirm wait for the moving of the water."

In the Middle Ages, however, the pool near St. Anne—perhaps, like the Bîr Eyûb, rediscovered and cleared by the Franks—becomes more important. Sæwulf in 1102 speaks of the Church of St. Anne, and "near it Bethsaida (*sic*), having five porches."

John of Würzburg writes, "in exitu ejusdem ecclesiæ ad dextram manum non longe per diverticulum est Probatica Piscina," clearly describing the newly-discovered pool. In 1172 Theodoricus speaks of the Church of St. Anne: "ad cujus aquilonalem partem qui progreditur, in valle profunda, juxta lapidosam quendam collem cui vetus quoddam opus

incumbit, Piscinam Probaticam inveniet." The mention of an adjacent "stony hill" with "remains of ancient work" and a "deep valley" shows that the accumulation of earth over the rock, which led to the site of the pool being lost, had probably not yet taken place.

We have also the two notes in the "Citez de Jherusalem," where first we find notice of the church over the fountain—written about half a century after Theodoricus.

William of Tyre, ch. 1 (*see* Bongar's "Gesta Dei," p. 473), says of this pool: "Veteris piscina adhuc vestigia retinens quinque porticus habens . . . ad quam nunc per porticam unam descenditur et reperitur aqua ibi gustu amara." Hence in his time (about 1180) the pool had already its present form, and was supposed to be only in part accessible—one out of five porches being open. The bitter water here noticed agrees with Mr. Schick's view, that the channel found near the pool and leading to the Birket Isrâîl was a drain. William of Tyre places Bethesda at the newly-found pool, and mentions the Birket Isrâîl as *Lacus quidam.*

In 1283 Brocadus, however, places the Probatica Piscina south of the road to the east gate of the city (*i.e.*, at the Birket Isrâîl); and north of that road he mentions "a very large pool," which he says Hezekiah made, and which he calls Piscina Interior, or the "inner pool." This becomes the recognised name of the St. Anne Pool, after the change of situation of Bethesda to its modern traditional site.

John Poloner (1422) speaks of the "Piscina Interior quæ est ad S. Annam," and Marino Sanuto (1322) notices the pool by the same name as being near St. Anne. In the "Travels of Sir J. Maundeville" (*see* Bohn's series, "Early Travels in Palestine," p. 172) we read that *in* the Church of St. Anne "is a well in manner of a cistern, which is called Probatica Piscina, and which hath five entrances." Even as late as 1509 Anselm says that not far from St. Anne, towards the House of Pilate (Ecce Homo Arch), is a very large pool.

From these notices we gather the history of the pool. It apparently existed in 333 A.D., and, being rock-cut, may be one of the ancient pools of Jerusalem. Josephus, however, only mentions one pool (Struthion) in this quarter of the city (5 Wars, xi, 4), which appears to have been that known as the Twin Pool "at Antonia."

We gather also from the passages cited that the church over the pool existed in the Crusading period, but probably not earlier, and that the present north wall of the pool existed already about 1180 A.D. In the twelfth century the pool was regarded as the Bethesda (or Bethzatha or Bethsaida) of the Gospel (John v, 2), and called the Probatica Piscina or "Sheep Pool;" but about 1230 A.D. (the time of the second Frankish occupation) the Birket Isrâîl begins to be regarded as Bethesda, although the Piscina Interior was known and occasionally called the "Sheep Pool" down to 1500 A.D.

It may here be noted as of some interest that Marino Sanuto gives an account of Hezekiah's alterations in the water supply of Jerusalem. He

regards the Piscina Interior as the "Upper Gihon," and apparently thought that originally an aqueduct ran from Birket Mamilla (west of the city) across to the Piscina Interior, but that Hezekiah diverted the water "west of the Tower of David" to the Lacus Germani (Birket es Sultân). The Birket Mamilla is connected by aqueduct with the citadel (near the Jaffa Gate), and its level is about 110 feet above that of the Piscina Interior.

Whether any of these pools can claim to be the true Bethesda is doubtful. The word in Hebrew, according to Reland, means (בית אשרא) "house of pouring forth" (*see* Sir C. Wilson's note in "Bordeaux Pilgrim," P. P. T. edition, p. 45; and compare Ashdoth Pisgah, "the streams of P.") The only place near Jerusalem where a periodical "troubling of the waters" is now known to occur is the Virgin's Fountain, which Robinson regarded as Bethesda, and where the Jews still wash to cure disease. If this be the true site, the *Probatike*, or "Sheep place," would be a name referring to the collection of flocks for watering at this spring.

C. R. Conder.

RECENT DISCOVERIES AT CÆSAREA, UMM EL JEMAL, AND HAIFA.

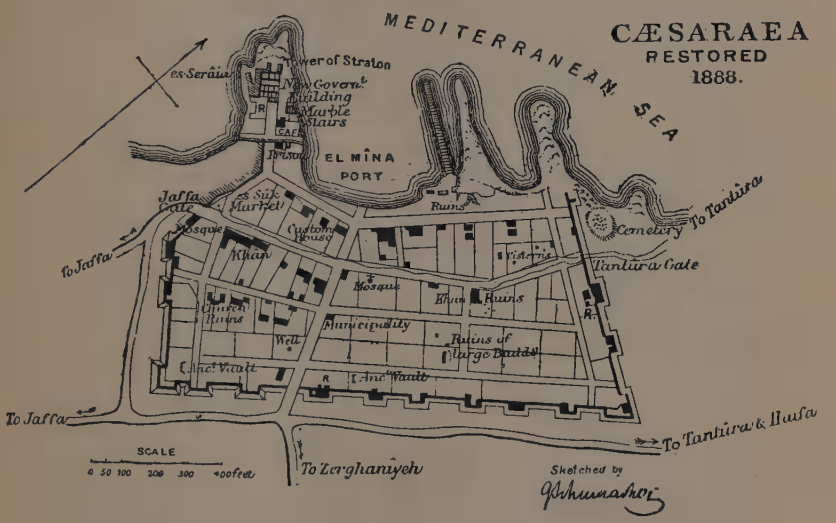
I.

Cæsarea.—The ancient site of Cæsaræa, as already mentioned in former *Statements*, has been restored by immigrants from Bosnia, who, after the Austrian occupation, fled to the Ottoman Empire and found a refuge at Cæsaræa, where extensive parcels of land were granted to them by the Sultan. This place now contains forty-five families of Bosniaks, who erected solid dwellings with tile roofs, which renders the place quite an European aspect, entirely different to the poor huts of their fellahîn neighbours, but their roads remain in a primitive state; no general plan was observed, and frequently disputes arose amongst themselves as to the lots they occupied within the city wall, still existing from the Middle Ages. In consequence thereof, the Government ordered its engineer to lay out the place in equal lots, not exceeding one-third of an acre each, and to construct roads, reserve a market place, a lot for a custom-house and a municipality. The annexed sketch will illustrate the plan of restored Cæsaræa, dividing the plain into seventy-five lots, forty-five of which, as before said, are already occupied, the remainder being in reserve for future Bosnian immigrants.

On the western part of the ancient site a narrow peninsula projects into the Mediterranean, on which the ancient tower of *Straton* was erected. According to Sepp ("Jerusalem und das heilige Land," vol. ii,

p. 573), and Reland, p. 670, a certain Straton of Greece first founded the city, who evidently was a Syrian general, and the fact that the "day on which the kings from the dynasty of the Chasmonians (Chasmonäer) commenced to govern was called the day of conquest of the tower of Straton" illustrates its importance.

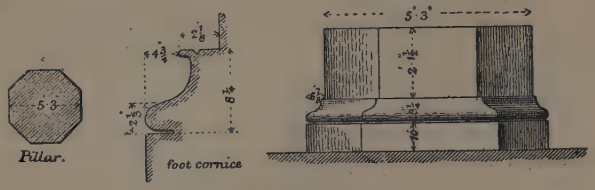
Dr. Sepp further states that in the interior of the tower a "tabula Domini," a table where Christ ate with His disciples (Odorich, 1330, c. 55), was shown. Strabo (xvi, 2) knows the place by the name of the "tower of Straton with a port," and Josephus (Wars, chap. xxi, 5) mentions its fall into decay, and its re-erection by Herod the Great, as well as the foundation of the beautiful city of Cæsaræa. This tower of Straton is no more; the high tower ruin, characterising Cæsaræa in modern times from a considerable distance as such, has been pulled down, and a modest Government building, the seat of a Moudîr, replaces it partially. Many



okes of powder were used to destroy this remarkable monument, with its walls up to 12 feet thick, but its vaults remained in the first storey and may wait a generation more until they are opened; as much as I could make out, these vaults were plastered and must have been used as water reservoirs; the tower, rising to about 60 feet above the sea, was in want of sweet water.

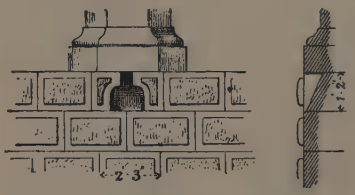
Amongst the *débris* of the floor of the first storey the octagonal pedestals of former pillars were brought to daylight; the pillars had a diameter of 5 feet 3 inches, were yet in all 3 feet 7 inches high, and showed the simple cornice as sketched. They were built of sandstone similar to all the other buildings.

The large building stones of the lower part of the tower are bossed,

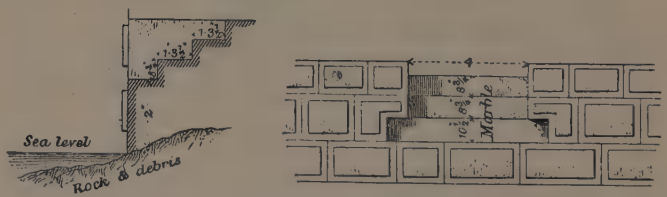


Vault Pillar.

and below the pillar above given, on the eastern front, arranged as sketched.



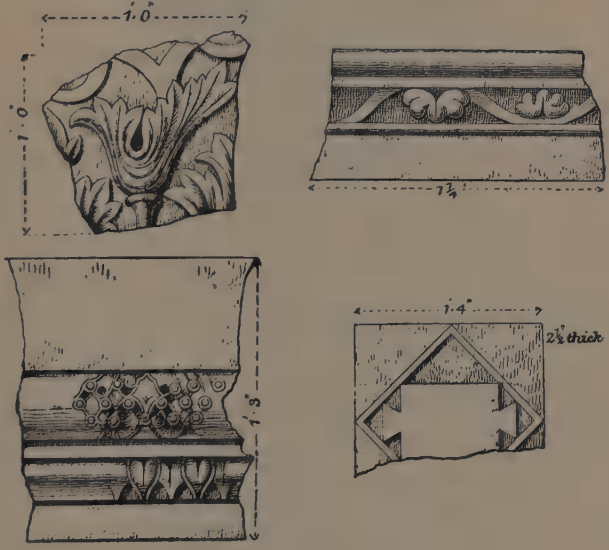
The floor of the tower is similar to the Arab cementing, "Barbarika," frequently used in this country for floors and roofs; a layer of good mortar, 1½-inch thick, in which small fragments of flint and other hard stones, pieces of brick and tile, are laid, and the whole mass stamped until it hardens. On the north of the tower a stair was opened which evidently led to the small northern harbour; its steps are made of good white marble, 4 feet wide, and each 9¾ inches to 10½ inches high, surrounded by bossed blocks.



The ancient Christian Basilica, in the south-east corner of the Middle-Age city wall, is entirely laid in ruins, and the apses are overbuilt by a Bosniak dwelling-house, while a new mosque is erected a little to the west of it; all I could save were a couple of fine Corinthian marble capitals and fragments of the vaults. The Bosniak houses partly occupy the counterforts of the city wall. Near the southern gate a small vault, 5 feet wide, carefully built, was opened, but immediately filled up with straw, and another, with thirty steps leading into the corridor surrounding the wall on the outside, near the church mentioned; every discovery is carefully hidden by the Bosniaks, who, hostile as they are, fear nothing more than

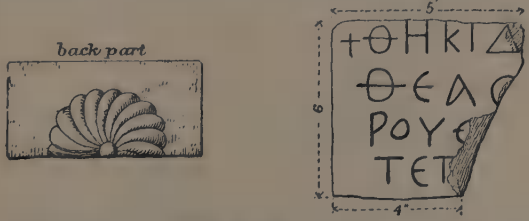
the penetration of foreign elements ; therefore no stranger is welcomed there, and, although they recently were obliged to erect a "Menzûl" or fellahîn inn for travellers or guests, no visitor will remain longer than absolutely necessary, he finding the streets desolate, and no sympathetic friendly face to answer to his wants.

After passing through the gate leading to Zerghanîyeh, I arrived at the depression marking the Roman hippodrome. I here and there found recent excavations, and the field covered with fragments of marble and building stones—of the latter, thousands and thousands being constantly exported to Jaffa. Of the fine marble ornaments brought to daylight, I here add a few sketches.



Marble Ornaments from Cæsarea.

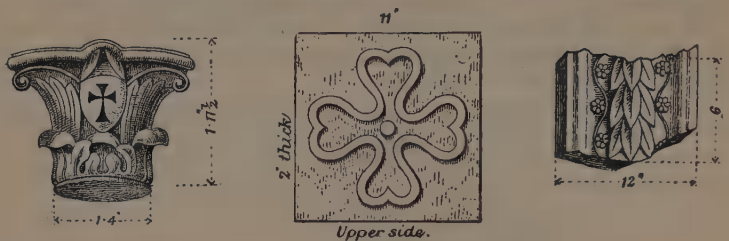
Besides a number of Christian emblems, crosses, laurels, &c., I also found a fine small marble capital 1 foot 11½ inches high, 1 foot 4 inches



Marble Ornament and Greek Inscription from Cæsarea.

in diameter, which shows a carefully-hewn cross on a sort of scutcheon,

and on a planted field next to the Hippodrome a Greek inscription on a



Marble Ornaments from Cæsarea.

marble piece. The Bosnian immigration is still continuing, although on a very small scale.

Umm el Jemâl.—The Jewish colony on this ancient site in the neighbourhood of Zimmârîn will soon be inaugurated; seven buildings are ready for habitation. Of ancient remains very little was found. Large hewn building stones, 4 feet below the surface of the earth, and foundation walls, parts of sandstone columns 2½ feet in diameter, four large cisterns, a small press, and some graves were found; the press is but 3 feet long, and consists of the Nâri-stone. The graves were about 3 feet below the surface, were 5 to 6½ feet long, surrounded by rough stones and covered by limestone plates, and contained some human bones. There was no sign of any carving on the slabs. Just above these graves, on the surface of the earth, there are also signs of an old cemetery of Bedawîn origin, as stated by the fellahîn of the district, and also signs of the wely of a Muhammedan saint under an old oak tree.

Haifa.—In the interior of the present city, near where the southern part of the city wall formerly stood, an old house, said to have been built before the regular settlement of the place commenced, was pulled down, and in the foundations of the new one the masons struck an upright standing granite column with a marble capital and some foundation walls. I tried to convince the proprietor to follow up the subterranean walls, but in this did not succeed. Nevertheless, I brought the capital to daylight, and annex its photograph, from which will be seen that it is of Christian origin, it bearing a cross in the upper part of each of the four sides. The diameter of the column was 1 foot 1 inch; the height of the capital 1 foot 3½ inches. The sculpture is not very fine, but distinct, and resembles the works of Crusade churches.

This column head is actually the first antiquity found within the limits of the present city of Haifa, and I feel convinced that it belonged to a crusading monument. Röhricht ("Zeitschrift Deutsch. Palæst. Verein," Bd. x, 4, pp. 203, 207, 216, 227, 310 ff.), in his highly valuable account on "Studien zur mittelalterlichen Geogr. u. Topographie Syriens," states that, among the properties held by the Crusaders in the 12th and 13th centuries, a house in Cayfas, on this side of the river,

next to the gate which leads to Accon, belonged to the Abbey of Galilee, and on p. 310 he states the existence of a church, "ecclesia S. Mariæ." On pp. 207 and 208 he says that the Church of the Holy Sepulchre had property between Chayfa and Palmarea ("in villa deserta

Marble Capital found at Haifa, from a Photograph.

inter Cayfam et Palmaream sita," etc.). Palmarea must have been built on the actual place where the present city of Haifa stands, while the old site of Cayfa was at Hêfa el 'Atîka, on the Râs el Krûm ; and the name, the Palm City, owes its origin to the existence of a fine palm grove east of Haifa, near the Kishon river, where still hundreds of palm trees are cultivated, and where here and there cisterns and ruins are found. Also close to the so-called Gate of 'Acca (Buâbet 'Acca) a rock-cut Birket with water channels, and a destroyed tomb, carefully pierced into the solid sandstone rock, were laid open at the construction of a road from said city gate towards 'Acca.

Besides these facts, which already seem sufficient to prove that modern Haifa is analogous to Palmarea, it must be stated that, according to reports from old inhabitants, Haifa (or Hêfa) was built on ground with scattered ruins by Daher el Omar, who destroyed ancient Haifa because that position was too much exposed to the invasions of Bedawîn and the renowned highwaymen of the neighbouring village of et-Tîreh, and built a wall and castle more towards 'Acca, from where he could attend easier to the inhabitants, respectively send them protection, and obliged the old Haifiotes to settle the new place within the wall he built, which settlement was first called el 'Amâra, until the old signification, Hêfa, again became familiar. By old fellahîn Sheikhs now and then 'Amâra is yet named for Hêfa, and this name sounds similar to Palmarea. Briefly, there is no site of an ancient place between Hêfa el 'Atîka and the Kishon on this side of the river except the building ground of modern Hêfa, which must therefore represent Palmarea.

NOTE.

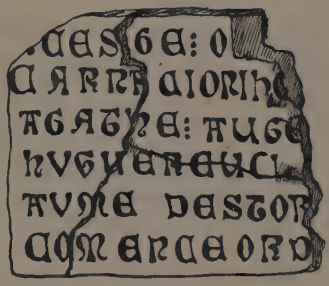
On the last page of the "Zeitschrift D. P. V.," Vol. x, Heft 4, at the end of Röhricht's interesting account I above mentioned, I find a remark by Herr Dr. Wetzstein that Mejd el Kerûm, mentioned in the Name lists of the Palestine Exploration Fund Map, Sh. III, is wrong, and should be called Merj (Merdsch) el Kerûm. As this place is often visited by me, I convinced myself of its true spelling and pronunciation, and can state that the name Mejd el Kerûm, مجد الكروم, the glory of vineyards (plantations, gardens), as called in the Name lists, is the right one, and could, besides this, find no objection to it being a good Arabic word. Both mejd and merdsch are often used in local names, and Mejd el Kerûm has every right to bear this distinguishing name, for its very extensive olive groves produce the finest olive oil found in the surrounding country.

G. SCHUMACHER.

HAIFA, *May 7th*, 1888.

II.

'Acca.—Among the *débris* of a house within the present fortification wall at 'Acca the following inscription was found engraved on a broken marble slab :—



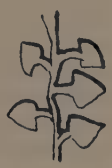
The characters of the above are the so-called (modern) Gothic letters used between the 13th and 16th century, especially by monks. They closely resemble the characters of the inscription on Philip D'Aubigné's tomb at Jerusalem (*Quarterly Statement*, April, 1887, p. 76), and may have been placed on the tomb of a certain "AGATHE," which name is contained in the inscription.

Saida (Sidon).—The Imperial Director of the Museum at Constantinople, H. E. Hamdy Bey, has resumed excavations at Saida, at a place near where the famous sarcophagi were found. He daily employs from fifty to sixty native workmen, but has had no other result yet than to find a necropolis containing some sarcophagi, which had been ransacked before, and were entirely empty.

Beisân.—Natives brought to me last week an interesting mask of a human head, made of pottery, which they found among the ruins of Beisân. I here add a photograph of same. The ears and eyes contain

small holes. The Persian beard is regularly curled—the hair twisted round the forehead in the shape of a garland of pearls; the upper part of the head, the crown, contains ornaments of vine leaves, very primitively made:—

Side view.



Near *'Abillîn* more tombs, cut into the soft limestone rock of the vicinity, were lately found. Most of them contained sarcophagi made of pottery. (*See* description of such, by L. Oliphant, Esq., *Quarterly Statement*, April, 1886, p. 80.) From one of these tombs I purchased a small earthenware lachrymatory (at least, natives pretended that they found it there). The antiquity contains on both broad sides the same figure, holding in its spread arms an animal; and to the right and left of the human head a cross is placed. The whole picture seems, as both sides are exactly alike, to have been stamped into the soft clay. The enclosed drawing shows its natural size and shape.

G. Schumacher.

Haifa, *May* 16*th*, 1888.

ON THE TRANSFERENCE OF THE ARAB NAMES OF SOME OF THE GATES OF THE HARAM ASH SHERIF BETWEEN THE ELEVENTH AND FIFTEENTH CENTURIES.

In the note on the Gates of the Haram which I contributed to Mr. Guy le Strange's translation of Mukaddasi I was misled by the statements of Mujîr ad-Dîn, and by modern tradition, which follows that author. A comparison of the descriptions of Mukaddasi (985 A.D.) and Nâsir-i-Khusrau (1047 A.D.) with each other, and with the description of Mujîr ad-Dîn (1496 A.D.) and existing remains, enables me to correct in great measure the errors in my former note; to identify many of the gates with some degree of certainty; and to show that a change took place in the Arab nomenclature of the gates between the 11th and 15th centuries, possibly when Jerusalem was captured by Salah-ed-Din.

Nâsir describes (p. 41) the Bâb an Nabî (Gate of the Prophet) beneath the Mosque al-Aksa in such terms as to leave no doubt of its identification with the Double Gateway and the passage leading upwards from it, beneath the Mosque, to the Haram area. He also mentions (p. 43) another gate, Bâb al Hittah (Gate of Remission), as being excavated in the ground; and the only known gate of this character in the Haram is the closed Gate of Muhammad, or of the Prophet, beneath the Bâb al Maghâribe. If now we turn to Mukaddasi's list of the gates, we find that he commences with Bâb al Hittah; that his second gate is the "two gates of the Prophet;" and that he ends with the Bâb Dâûd, which is without dispute the Bâb as Silsilah of the present day. The inference I draw from this is that Mukaddasi named the gates in order, commencing with the Bâb al Hittah and ending with the Bâb Dâûd, and not, as I supposed in my former note, at hap-hazard.

In attempting to identify the gates with those which now exist, it is necessary to bear in mind that the Haram area, with its buildings and the approaches to it, have been much altered at various periods, as, for instance, during the Latin Kingdom, after the recapture of the city by the Saracens, and when the walls were rebuilt by Sulaiman in the 16th century.

Following Mukaddasi's list, we have :—

1. Bâb al Hittah (Gate of Remission). The Bâb al Hittah of Nâsir, which was excavated in the ground. This is the present closed gate, Bâb al Borak, or Bâb an Nabî Muhammad, beneath the modern Bâb al Maghâribe. It is called Bâb an Nabî by Mujîr ad-Dîn, who places the Bâb al Hittah in the north wall of the Haram.

2. The "two gates of the Prophet" (Mukaddasi). The "Gate of the Prophet" in the south wall, and beneath the Mosque al-Aksa of Nâsir. The present Double Gate, the Arab name of which is "the Gate of the Old Aksa," as given by Mujîr ad-Dîn.

3. The "gates of the Mihrâb Maryam" (Muk.). These gates must have been close to the Mihrâb Maryam (p. 35), in the south-east corner of the Haram, from which they take their name. They apparently correspond to the Bâb al 'Ain[1] of Nâsir (p. 43), and are now represented either by the closed "Single Gate" in the south wall or by the "Triple Gate."

4. The "two gates Ar Rahmah" (Muk.). The Bâb ar Rahmah and Bâb at Taubah of Nâsir, so called by Mujîr ad-Dîn and by Moslems at the present day. The double gateway known as the Golden Gate.

5. The "gate of the Birkat Bani Israîl" (Muk.). The eastern gate in the north wall is called by Nâsir the Bâb al Abwâb (Gate of Gates). It is now called, as in Mujîr ad-Dîn, the Bâb al Asbât (Gate of the Tribes), and opens to the road over the dam at the east end of the Birkat Israîl.

[1] The Bâb al 'Ain probably derived its name from the Virgin's Fountain, to which the road passing through it led; the Mihrâb Maryam is a reminiscence of the Mary Church of Justinian, built in this part of the Haram; and the Virgin's Fountain possibly owes its modern name to the same source.

6. The "Gate of Al Asbât" (of the Tribes) (Muk.). It corresponds to the Bâb al Asbât of Nâsir (p. 32), which was in the north wall to the west of the "Gate of Gates." It is now called Bâb al Hittah, and was known by the same name to Mujîr ad-Dîn, who gives with reference to it the legend applied by Nâsir to Gate No. 1.

7. "The Hâshimite Gates" (Muk.). These appear to be the gates leading to two cloisters (daryûzah) belonging to the Sufis, said by Nâsir (page 32) to have been in the north wall to the west of the Bâb al Asbât. It is, apparently, the modern Bâb 'Atm, which is called by Mujîr ad-Dîn Bâb al Dewatar, from a school of the same name, and said by him to have been the gate by which Omar entered on the day of conquest.

8. The "Gate of Al Walîd" (Muk.) is possibly the Bâb al Ghawânimah in the north-west corner of the Haram area; it is given the same name by Mujîr ad-Dîn, who says that it was formerly called the "Gate of Abraham."

9. The "Gate of Ibrahîm" (Muk.) is perhaps the same as the Bâb as Sakar, "Gate of Hell," which is the only gate that Nâsir mentions in the west wall: it lay to the north of the Bâb Dâûd (page 31). It is apparently the modern "Bâb an Nâthir," which, according to Mujîr ad-Dîn, was formerly called the "Gate of Michael," and was an ancient gateway. The street "Akabat at Takiyeh," which runs westward from the Bâb an Nâthir, is supposed to follow the line of an ancient street, which supports the view that this gateway is on the site of a much older one.

10. The "Gate of Umm Khâlid" (Muk.). Either the modern Bâb al Hadîd or the Bâb al Kattanîn, which, according to Mujîr ad-Dîn, was in his time, as it is now, near the Gate of the Bath.

11. The "Gate Dâûd" (Muk.) is the same as the Bâb Dâûd of Nâsir. It is now the Bâb as Silsilah (Gate of the Chain), and the adjoining gate Bâb as Salâm (Gate of Peace) is the Bâb as Sakînah of Nâsir (page 43). Mujîr ad-Dîn mentions this double gate under the names Bâb as Sakînah and Bâb as Silsilah, and says that the latter was formerly called the Bâb Dâûd.

One gate mentioned by Mujîr ad-Dîn, the "Gate of Borak," appears to have been completely destroyed when the walls were rebuilt by Sultan Sulaiman in the sixteenth century. He says that the East Gate of the Dome of the Rock, called the "Gate of Isrâfîl," led to the steps of Borak, which were opposite the "Dome of the Chain;" and that opposite the steps was the "Gate of Borak," so called because the Prophet entered by it on his night journey, and named the "Gate of Funerals" because they went out by it. This is apparently the Gate of Jehoshaphat of the Crusaders, but it does not appear to have been in existence when Mukaddasi and Nâsir wrote their descriptions.

The following table shows concisely the proposed identifications :—

Mukaddasi. 985 A.D.	Nâsir-i-Khusrau. 1047 A.D.	Mujîr ad-Dîn. 1496 A.D.	Modern. 1888 A.D.
1. Bâb al Hittah..	Bâb al Hittah ..	Bâb an Nabî ..	Bâb an Nabî, below Bâb al Maghâribe.
2. Bawâb an Nabî	Bâb an Nabî ..	Gate of the old Aksa.	Gate of the old Aksa. (Double Gate.)
3. Gates of the Mihrâb Maryam.	Bâb al 'Ain (?) .. (Gate of the spring)	..	Single Gate (?).
4. Gates ar Rahmah.	Bâb ar Rahmah Bâb at Taubah ..	Bâb ar Rahmah Bâb at Taubah ..	Bâb ar Rahmah. Bâb at Taubah. (Golden Gate.)
5. Gate of the Birkat Bani Israîl.	Bâb al Abwâb ..	Bâb al Asbât ..	Bâb al Asbât.
6. Bâb al Asbât ..	Bâb al Asbât ..	Bâb al Hittah ..	Bâb al Hittah.
7. Hashimite Gates.	Gate to the Sufi's Cloisters.	Bâb al Dewatar..	Bâb 'Atm.
8. Gate of Al Walîd.	..	Bâb al Ghawânimah.	Bâb al Ghawanimah.
9. Gate of Ibrahîm	Bâb as Sakar (?)	Bâb an Nâtbir ..	Bâb an Nathir.
10. Gate of Umm Khâlid.	..	Bâb al Hadîd or Bâb al Kattanîn.	Bâb al Hadîd or Bâb al Kattanîn.
11. Gate Dâûd ..	Bâb Dâûd .. .. Bâb as Sakînah ..	Bâb as Silsîlah .. Bâb as Sakînah..	Bâb as Silsîlah. Bâb as Salâm.

The page references are to Mr. Guy le Strange's translation of Nâsir-i-Khusrau, published by the Palestine Pilgrims' Text Society.

C. W. W.

THE TEN TRIBES.

That Israel was carried into captivity the most sceptical will hardly deny in face of the historical tablet which relates how Sargon, in 722 B.C., took 27,280 prisoners from the city of Samaria, and how he supplied their place with foreign colonists.

The question is what became of these Israelite captives, and this is one which has been very variously answered. I do not here refer to the legend of Jeremiah visiting Ireland, and of the "Stone of Bethel" becoming the Stone of Scone, and the coronation stone now in Westminster Abbey, for, as Dean Stanley once observed, this stone is of some kind of sandstone not to be found in Palestine, and certainly not at Bethel, where all is hard limestone; and these mediæval legends no doubt grew up in England long after Christianity reached our shores, much as the Boer in South Africa yet believes that the Promised Land lies not far north of the Transvaal, which belief caused misery and death to

many families during the extraordinary exodus of the "Trek Boers' north of the Zambesi.

But the question what became of Israel, and what is to happen to Israel in the future, has exercised the minds of Jews, Samaritans, and Christians from the Christian era downwards, and has been very variously answered. The Samaritan solution was simple. Israel returned to Palestine about the time when Judah and Benjamin returned to Jerusalem under Ezra. A great gathering in the Haurân was followed by an advance under the guidance of Sanballat the Levite (or the Horonite) to the sacred mountain at Shechem, and of these returning exiles the modern Samaritans are the descendants. Unfortunately, the "Samaritan Book of Joshua," in which this story occurs, is a late mediæval book, full of strange legends, mostly of Persian origin.

In the early centuries of the Christian era there appears to have been great diversity of opinion among the Jews on this subject. In the Mishnah (Sanhed x, 3) we read—"the ten tribes will not return" in the days of Messiah, because it is written "and the Lord rooted them out of their land in anger and in wrath and in great indignation, and cast them into another land as this day" (Deut. xxix, 28). On the other hand, passages were understood by other Jewish writers (Philo and the author of the Apocalypse of Baruch) in a contrary sense—"I will gather the remnant of my flock" (Jer. xxiii, 3), "Israel shall dwell safely" (verse 5), "and I will save the house of Joseph, and I will bring them again" (Zech. x, 6). It was on these passages apparently that Rabbi Eliezer relied in controverting R. Akiba's opinion that Israel would not return to Palestine.

In the second book of Ezdras (xiii, 41–50) we learn that the Ten Tribes are in a country never before inhabited, and called Arzareth, beyond a river which is to be dried up when they return.

This is perhaps the earliest foundation of a legend which attracted great attention in the Middle Ages, and induced adventurous travellers to set out in quest of the ten tribes. Mr. William Simpson has called my attention to passages in the travels of Wolff which tend to show that the idea of the Ten Tribes in central Asia survived to the present century; and other travellers have pointed out that the Nestorians claim to be of Hebrew origin. We may first consider the legends and then the historical foundation on which they rest.

In the Korân we find a legend, no doubt partly of Jewish origin, which relates the journey of Moses in search of El Khudr ("the green one"), who answers to the Jewish figure of Elijah as an immortal and ever present spiritual power. In the region of the Greek and Persian seas (apparently the Black Sea and the Caspian) Moses found a people oppressed by Gog and Magog. El Khudr was the Minister of Dhu el Karnein, "he of the two horns," usually identified with Alexander the Great, who on his coins has rams' horns, and who had drunk of the fountain of life and become immortal. Here also was the place where the sun sets in a miry fountain. Moses built an iron wall between two

mountains to shut in Gog and Magog, and poured molten brass over it (Sura xviii, 59–99). It should be noted that the mention of Alexander the Great tends to show that this story may have been partly of Persian origin—legends of that hero being common in Persia ; and a few centuries later (in Firdusi's Shah-Nama, about 1000 A.D.) we get the same story in Persia, where Gog and Magog are represented as demons and giants who devoured man and beast, and who were shut up inside a wall by Alexander the Great himself.

Sir John Maundeville, in the 14th century, connects Gog and Magog with the Ten Tribes (chap. xxvi), and says that they were shut up till the end of the world between two mountain ranges in Scythia.[1] The Emperor Frederic II says, in a letter to Henry III, that the Tartars were descendants of the Ten Tribes shut up by Alexander the Great in the Caspian Mountains. As time went on, however, and as a Christian kingdom became established in Armenia, the story seems to have migrated east, and the wall was transported to the Great Wall of China in Marco Polo's time (*see* Yule, Marco Polo, i, pp. 50, 250, 257, 259).

As regards the river of the land Arzareth, it would seem that the localisation of the legend points to Arzareth being Erzerum, and the river probably the Araxes ; and it is remarkable that a Persian legend (mentioned by Du Perron) speaks of Zoroaster, when thirty years of age, as crossing dryshod with his followers over the river Araxes, coming from the mythical mountain Elburz, where he received the Zendavesta from Heaven. According to a mediæval Jewish legend the Ten Tribes dwelt beyond the river Sambation, or Sabbatical River. This, though identified with the Ganges (Mid. Bereshith Rabba, 2 ; *see* Neubauer's Geog. Tal., pp. 33, 386), was originally the present Nahr es Sebta, in Northern Syria (Pliny, Hist. Nat. xxxi, 2 ; Josephus, Wars, vii, 7, 5), an intermittent torrent which I have noticed in "Heth and Moab." Josephus says it flows on the seventh day ; Pliny, that it flows six days and rests on the Sabbath. Josephus was nearer the truth, for the rise of the stream is uncertain, and it runs only for a few hours. Thus the mystic river, like the wall of Gog and Magog, was never certainly identified.

Local traditions appear from an early date to have represented the inhabitants of Georgia and Kurdistan and of Bactria, east of the Caspian, as descendants of Israelite tribes.

Thus Benjamin of Tudela, who travelled in the twelfth century from Spain to inquire into the condition of the Jews in the East, speaks of four Israelite tribes in Bactria living under independent rulers. The Nestorian Christians who live in the Kurdish Mountains on the borders of Armenia,

[1] About 1244 Matthew, of Paris, says of the "Enclosure of the Caspian Mountains" : "There dwell the Jews whom God shut in at the prayer of King Alexander, who shall come forth before the Day of Judgment, and shall make great slaughter of all kind of folk. They are shut in by mountains, high and great, and cannot come forth." He thus identifies them with Gog and Magog of the book of Ezekiel.

having been driven by Timur and the Mongols from Mesopotamia, are said to claim to be descendants of the tribe of Naphtali, and are closely connected with the Jews of that region. According to Dr. Wolff (Travels, vol. ii, published 1861), the inhabitants of Merv and Khiva were regarded by the Jews of that region as descendants of Hivites, Perizzites, and Jebusites,[1] who fled from Joshua to the Caspian and went yet farther north in little boats; and the Jews had, it appears, intermarried with Turkomans of Khiva, whom they regarded as Hivites.

Now, if, as I believe to be the case, the Canaanites were a Tartar people, the Bactrian Jews were not so far wrong. The story shows that a Jewish influence must have existed for some time in the Turkoman country, and we are consequently interested in tracing its history.

The corner of Asia with which we are concerned is one which on account of its mountainous character has always been the hiding place of oppressed nationalities, and the existence of a very mixed population in this region is generally admitted. Thus Armenian is an Aryan language full of Turanian words. The Medes of the time of Cyprus were a mixed Aryan and Turanian people. The Georgian language is inflexional, but many of its particles are apparently Turanian, and the term Alarodian, by which the Caucasian languages are described, serves mainly to show how little is known about them. In the Kurds we have descendants of the Parthians, and, till quite recent times, they preserved the Parthian horn bow; and, in addition to these mixed races, the Jews in the Byzantine age, and subsequently when Islam first conquered Persia and Mesopotamia, fled from alien oppressors of other faiths to the region north of the Caucasus, between the Crimea and the Caspian.

In this connection it is interesting to note that rude sculptures occur both in Turkestan and in Southern Russia, which have been supposed to be of Scythic origin. We may finally discover in these monuments akin to those of Asia Minor and Northern Syria; one of these statues, described

[1] In another passage he includes the Hittites. Now the Hittites were by no means a "peculiar people," they were only one out of numberless Tartar tribes, and it is remarkable that a great tribe existed west of Manchuria, called Khitai (bounded on the west by the Gobi desert, on the north by the Pohai Tartars, and on the south by China); their language approached the Mongol and the Tunguse. Here, rather than among the mixed populations of Georgia, we may seek the Hittite type. The history of the Khitai is traced back to 230 A.D. Their name is said to mean "tattooed," or "painted red"—a practice found among Etruscans, Romans, Guanchos, and Hottentots, who all painted themselves red in sign of rejoicing: but it may have other derivations. (See J. R. A. S. xiii, II.) Teh'ang Te, travelling in 1259 in Turkestan, west of Kuldja, was told that the Kitai formerly dwelt there. Plano Carpini, in 1245, found the "Black Khitai" east of the Aral Sea. Rubruquis, in 1253, says they used to dwell near Lake Balkash (*see* Schuyler's Turkestan, I, note 3). Thus the Khitai were believed to come from Turkestan itself, where languages closely akin to the ancient Median and Akkadian are still spoken.

by the Chinese traveller Sui-Sun, near Lake Issyk-Kul, represents a man girt with a sword, and placing his left hand to his forehead (compare the Hittite figures for this attitude), and in the same vicinity, north-east of Kashgar, Colonel Tchaikofsky found a human face, with a long text in a character which he supposed to be Thibetan. Further information as to the supposed Scythian statues would be of interest.

No less than 700 Hebrew tombstones, with inscriptions dating from about the second to the tenth century, have been found in the Crimea. The sect of the Karaites, to which these Jewish emigrants belonged, was akin to that of the Sadducees, and their alphabet was the square Hebrew which originated in Aram. They appear to have begun to spread northwards in the Roman age, during which the Jews, already strong in Egypt and in Mesopotamia, were dispersing all over the Roman world, and had their cemeteries also at Naples, Rome, and elsewhere in Italy (*see* "Syrian Stone Lore," p. 228). The same kind of movement which drove the Karaites to the Caucasus may, without any great improbability, have driven some of the Israelite captives from Assyria at an earlier period to the same region;[1] but, on the other hand, the whole account may be of Jewish origin.

Carmoly, in his valuable notes on the Khozars, shows us how the Karaites came to be so numerous in this region. The Khozars, or Khazars, were a Turkish people who lived west of the Caspian, which was at one time called the Sea of the Khozars. They occupied the Crimea and the region of Daghestan, near Derbend. It is related by Moses of Khorene that they invaded Armenia about 178–198 A.D. In 449 they were under the power of the Hunns. In the 6th century they were sufficiently powerful to attack Persia, but Khosru Anurshiwan is said to have shut them in by building the Caucasian wall, of which the ruins are said to exist in the passes of Daghestan, near Derbend.[2] In 625 Heraclius made peace with the Khozar king near Tiflis. In 661 Rabiat el Bahli was sent by the Khalif to attack the Khozars, but they allied themselves with the Greeks and repulsed him. In the 10th century their power appears to have extended from the Sea of Asof to the Crimea. The Mongols subdued them in 1221, and found many Christians among them.

To this pagan kingdom the Jews fled from Christian persecution in the time of the Byzantine Emperors Basil I and Leon VI, and later on the Christians fled to the same region from the Moslems. It is related by Moses bar Nachman, and by others, that in 740 A.D. a certain Is-hak Sindjari converted the King of the Khozars to Judaism, and many of his subjects became Jews. This curious kingdom is described by Ibn Haukal in 921 A.D., and by Mas'udi in 943 A.D. In 958 the Minister of

[1] In 2 Kings xvii, 6, we read that Israel was taken to Halah, Habor, and "the cities of the Medes." Media lay just south of the Caspian.

[2] Such defensive walls were of early construction. Arrian (iii, xviii) says that Alexander found the Persian Straits blocked by a wall with towers south of Ecbatana (Hamadan) as he advanced into Media.

the Spanish Khalif, 'Abd er Rahman III, who was a certain Chasdai Ibn Is-hak Ibn Ezra Ibn Sprot, hearing of this Jewish kingdom in the Caucasus, wrote a letter (which Carmoly gives) to the Khozar King, which was answered. These letters were published by Is-hak Akrish in 1575. In 1175 the Jewish traveller Petachia, of Ratisbon, set forth to find the Ten Tribes, of whom the Khozars now claimed to be representatives, and, passing through Persia and Media, he found the tribe of Issachar in the mountains beyond—in the Khozar country.

According to Ibn Haukal, in the 10th century there were 6,000 Moslems among the Khozars. The king was a Jew, with 1,200 soldiers; and at the city of Asmid was another allied Jewish king.

Some Khozars were Turks, black-haired; some were very dark, like Indians, some lighter (perhaps Aryans); the latter, he says, sold their children—as the Georgians have always done. They practised the "happy despatch" (like the Chinese), and called their king, who was always a Jew, the Kha-Khan.

Mas'udi, twenty years later, says that all the Court of the Khozar kings consisted of Jews who had come from Moslem and Christian countries. There were pagans of different races among them, and some burned their dead and practised suttee—probably Aryans. They traded in the skins of black and red foxes.[1]

There is thus little difficulty in understanding the mediæval ideas about the Ten Tribes. The region in which they were supposed to dwell was the region where the Jewish Kingdom of the Khozars actually existed from 740 to 1220 A.D.—nearly five hundred years—together with the adjoining regions in Bactria, east of the Caspian, which were no doubt influenced by them. Hence the confusion with the Tartars, and with the biblical Gog, for it is generally admitted that Gog (*see* Ezekiel xxxviii, xxxix), connected with Tubal and Ashkenaz (*cf.* Gen. x, 2), represents a Caucasian people.

The legend of the wall originates either in the wall which Alexander stormed in Media or in the later wall of Chosroes, north of the Caucasus, which was built before the Koran and the Shahnamah were written. The story of the river is older, since it is mentioned in Ezdras—probably in the same region (Arzareth; perhaps the western region Arzah of the Persians, Bundahish xi, 4); but, as already mentioned, it is connected with a Persian legend. Those who in more recent time have sought the

[1] There was a great skin trade with the north in Crusading times, when *Vair*, the skin of the Siberian squirrel, was so highly esteemed. The *peltry* or "skins" of the Land of Darkness are mentioned by the mediæval geographers, and the trade with the unseen inhabitants of these Arctic regions is noticed by Ibn Batuta and Abu el Feda (*see* Col. Yule's "Marco Polo" ii, pp. 414, 415). From a recent paper in the "R. E. Journal" I gather that the Jewish early population in the Caucasus is not yet extinct. In Daghestan and the districts near it about 30,000 souls still reside, but as a decreasing population. Their most remarkable custom is the painting of the face (like Jezebel) by the women, who are said to paint broad bars of yellow and red across the face.

lost tribes in Bactria[1] have, it seems, forgotten the existence of this Jewish influence, lasting for five hundred years on the shores of the Caspian, and extending much further east, for there were Jews in China, as Ibn Batuta mentions—and even as early as the 2nd century A.D. A Jewish-Chinese text of 1511 speaks of a synagogue in Pien in 1164 A.D.

But, while the fact of the eastward spread of the Jews is thus historically traced, it is certainly curious that they regarded themselves as descendants of tribes other than Judah and Benjamin. They may have been preceded by Israelites of those tribes, but it is equally probable that the reason lies in their own knowledge of Bible history, which recorded the return of the two tribes under Ezra. Nor must it be forgotten that a descendant of Asher is mentioned in Jerusalem in the New Testament (Luke ii, 36).

C. R. C.

THE HITTITE MONUMENTS.

SOUTHAMPTON, 23*rd May*, 1888.

THE series of articles in *Nature*, based on the lectures of Mr. Thomas Tyler (January, 1888), having now terminated, I would beg to be allowed to make a few remarks on his work. I have no desire to raise controversy, or to force my own views on any who may not agree with me, but, Mr. Tyler having seen fit to allude to my work, and to bring charges of inaccuracy against me, it is evident that I may be considered as bound to answer. Another reason for speaking lies in the fact that many of Mr. Tyler's comparisons are either identical with, or closely similar to, those which I have put for-

[1] In a very interesting paper, Sutlej Pujahs (J.R.A.S. xvi, 1), Mr. Simpson quotes from Bellew's Journal of a Political Mission to Afghanistan, 1837, who again quotes from Afghan legendary histories an account of the Tabut i Sakinah, or "Ark of the Shekinah," among the Afghans, who call themselves Beni Israil. The Hebrew history may, as he suggests, have come into Afghanistan with the Moslems, but there is another possible origin. One of the authorities quoted is Habb ben Mania, "the Son of Manes." Now the Bundahish agrees with Mas'udi in making the Turko-Tartar tribes in Turkestan, and as far as China even, Manicheans, in the 10th century or earlier, and Manes included Jewish ideas in his great syncretic system.

The word Tabut is applied by Shi'ah Moslems (who have much in common with the Manicheans) to a model of Husein's tomb.

Arks were very commonly used in Asia by the Babylonians and Egyptians and Phœnicians, as well as by the Hebrews. The Canaanites had arks, according to a text translated in "Records of the Past," as early as 1600 B.C. The Khitai in Cathay, in the 10th century, had a consecrated tent used as a temple during their war expeditions.

As regards Manes, however, it should be noted that the legendary ancestor of the Kirghiz in Turkestan was the giant called Manias.

ward at different times between 1883 and 1887; and, although Mr. Tyler is clearly acquainted with my writings, he has not thought fit in these cases to acknowledge my priority. Not that I stand alone in this respect, because in some cases discoveries by Professor Sayce have in the same way appeared in these papers without note as to their origin.

I first began to study these monuments in 1880, and have devoted nine years of leisure time to the subject with the assistance of very well known scholars; and I may perhaps, therefore, be allowed to remark generally that Mr. Tyler's papers show only an imperfect knowledge of his subject. He claims to set forth "just principles," and to found his work on "very recent" discoveries. Yet, with exception of a seal from Tarsus, which, as he allows, advances our knowledge very slightly, he refers to nothing which has not been known for many years to students of the subject, while, as regards principles, I am at a loss to understand what these are, unless they be the Pythagorean and abstract meaning of one or two emblems—a speculation which Professor Sayce last year dismissed with a curt (and I fear I must say contemptuous) note in the Academy. Mr. Tyler has picked out a few emblems here and there in an arbitrary manner. He has not adopted the only methods which seem capable of giving scientific results, namely—1st, the comparison of all the combinations in which any emblem is known to occur; 2nd, the comparison of Altaic emblems with known phonetic and ideographic values in other systems; 3rd, the use of the *sounds* recoverable from Cypriote.

Before noticing details I would ask to be allowed to explain the principles on which I have attempted the decipherment, which are either not understood or else ignored by Mr. Tyler. It appeared to me that the emblems must be treated as a cypher is treated, by observing the relations which they bear to each other in as many cases as possible—a method by which Mr. Tyler might have avoided palpable errors. It further appeared to me that a knowledge of the ideographic (or picture) value of the emblems was attainable by comparison with the use of similar emblems in other systems—such as cuneiform Egyptian and Chinese—rather than by relying, as Mr. Tyler so often does, on conjectural values based on nothing but arbitrary suppositions.

Finally, in 1883, after consultation with the lamented Dr. Birch, with Dr. Isaac Taylor, and with Professor Sayce, I came to a conclusion which the first of these authorities suggested to my mind, but which was not then held by the other two, namely, that the Hittites were a Turanian tribe, and that their language was probably akin to the old Turanian speech of Chaldea and Media.

To Professor Sayce is due the discovery that in the Cypriote emblems we have the hieratic forms of the Hittite emblems. This suggestion seemed to me at first unproven in view of the eight comparisons in Dr. Taylor's "History of the Alphabet" (six of which are, I think, wrong), and of Professor Sayce's comparisons with the early and inaccurate copies of the Hittite texts. When, however, I became possessed of complete lists of these Cypriote characters it became clear to my mind that Professor

Sayce's principle was sound, and I have now proposed forty such comparisons.

From the Cypriote emblems *sounds* are derivable, which, as Dr. Taylor saw, might serve to fix the language of the texts. It does not appear to me that Professor Sayce made sufficient use of these sounds when he attempted to decipher the texts (*see* his proposed readings in Wright's "Empire of the Hittites"), and it was through these sounds, and through an analysis of the "cypher value," so to speak, of each emblem, that I arrived at the results published last year. No scholar had, as far as I know, before that date been able to show either the phonetic or the grammatical values of the emblems in such a manner as to connect them with an Asiatic tongue. The values assigned had always been as arbitrary as was the assumption that the texts are historical.

During the present year I have published (*Quarterly Statement*, April, 1888) the results of another year's study of the question, and have shown in a manner which has met with acceptance from many scholars that the proposed values agree, not merely with the sounds of the dead languages of Media and Akkad, but with those of the living Turko-Tartar and Ugric languages—a result further confirmed by comparative study of 30 personal and 200 geographical names from the Hittite country.

The present state of the question is this: Dr. Isaac Taylor has lately expressed his present belief that the Hittite chiefs were Turanians, and his opinion on my recent paper is most satisfactory to me.

Mr. T. G. Pinches and Mr. G. Bertin, who are probably the best Akkadian scholars in England, have told me that the important words *Ku* and *Ma* on the bilingual are (as I urged) Akkadian. Mr. Bertin, author of the "Grammar of Cuneiform Languages," just published by Trübner, states that he thinks my comparison with Akkadian represents the safest method of study, and Mr. Pinches believes that a people speaking some such tongue must have lived near Carchemish. Professor Sayce, while regarding the Vannic language (akin to Medic) as the best for comparison, is also, I believe, now in agreement as to the Mongolic type of the Kheta, and as to the agglutinative character of their language.

I might then afford to disregard the opinion of a writer who seems as yet imperfectly acquainted with the subject, were it not that he charges me with inaccuracy in a manner which I feel to be undeserved.

All that I claimed in 1887 was to have discovered the group to which the Hittite language belonged, and to have commenced the decipherment on principles not arbitrary or conjectural. The method which I adopted has obtained increasing favour with scholars, and I feel no doubt that the discovery of the language will in time lead to a complete decipherment.

As regards the proposed comparison of Hittite, Vannic, and Medic with the Georgian and other languages of the Caucasus, all that can at present be said is that these languages have been tried, and have not

served to give such results as are obtainable from the Ugro-Tartar Group.

I now proceed to substantiate the statements which I have made as to Mr. Tyler's papers, in detail. So far as he reproduces the work of Chabas, Brugsch, and Perrot, and the later publications of Dr. Sayce, which are available to the general public in Wright's "Empire of the Hittites," his work may be useful, but these are not new discoveries, since Chabas wrote his monograph in 1866, and Professor Sayce's chief discoveries date from 1876 and 1880. I am also in agreement with him in those cases where he apparently adopts suggestions of my own. As regards his original work, I think that it will tend rather to produce controversy and confusion than to contribute to the cause of science.

Mr. Tyler states that certain hypotheses ("and vagaries") repugnant to the scientific spirit have of late been advanced, yet he himself adopts, without question, two most improbable ideas: 1st. The existence of Hittites (as an empire or otherwise) throughout Asia Minor. 2nd. The Hittite origin of all monuments on which a curly-toed boot is represented. As regards the first, the Bible, the Egyptian monuments, and the cuneiform texts agree in representing the Hittites as an important tribe of Northern Syria. The monuments speak of no Hittites elsewhere, nor does Herodotus or any other ancient author. It is certain that there were tribes of kindred race and civilisation north, north-west, and north-east (and I believe also south-east) of the Hittites; but when Mr. Tyler adopts my view [1] as to the independence of these various tribes he might also set an example in discontinuing to use the unscientific term "Hittite" in describing the Altaic or Turanian hieroglyphs.

As regards the curly-toed shoe,[2] Mr. Tyler might have satisfied himself that the Egyptians wore it, for there are several pairs in the British Museum. The Etruscans and Armenians alike wore it, as did and do the Crusaders, the Turks, and the Arabs and Kurds. It is not unlike the Chinese and old Japanese shoe; and it is somewhat absurd to class ancient peoples by their boots, especially when the information relied on is so partial and misleading.

The pigtails of the Kheta were, I believe, first noticed by Dr. Birch. I called attention to them in 1883.[3] Mr. Tyler does not refer to the latest information (the casts by Mr. Flinders Petrie), and he should have known

[1] See "Heth and Moab," 1st edition, p. 422, 1883; "Syrian Stone Lore," 1886, p. 23; "Altaic Hieroglyphs," 1887, p. 8, &c.

[2] Dr. Sayce calls this a "snowshoe," and says it is adapted for walking on snow. It is true that it resembles a skate of old-fashioned form in having a curl in front, but it bears no resemblance to any snowshoe worn by northern peoples. These are always large flat surfaces for distributing weight. As I have attempted to walk on snow in the ordinary Turkish shoe, I may be allowed to say that it is less fitted for the purpose than an English boot. Sir C. W. Wilson put forward a much sounder comparison some time since with the boot now worn in Asia Minor.

[3] See "Heth and Moab," 1st edition, p. 22.

that Rosselini's drawings have been found not to be thoroughly reliable. He would then have avoided the error of reproducing these in Fig. 2. The comparison with the Manchu Tartars which follows represents the theory which I have steadily advocated now for five years. Some of his observations on the point are, however, of value. The pigtail is certainly not characteristic of female figures, as he states Professor Sayce to have asserted; what is represented in the case of females is probably a long plait of hair like that worn by the Etruscan women. The British Museum contains a magnificent example of these long braids in the terra-cotta figure of an Etruscan woman.

Mr. Tyler allows that the word *Sar* cannot be purely Semitic when it is suffixed. The remark is not new, but Mr. Tyler omits to point out that in Akkadian *Sar* for "prince" or "chief" has just this position (as I noted in 1886),[1] and that it is a very common Turanian word, whence the Russian *Tsar* is derived. In the next sentence he refers to *Bek* as Mongolian, but unfortunately forgets that the words he quotes are names not of persons, but of towns. I have recently shown[2] that the word occurs as meaning "fortress" or "shrine" in many Tartar and ancient Turanian dialects.

Mr. Tyler thinks that the figures at Boghaz Keni represent kings and Amazons. He does not say what nations used to stand erect on the backs of lions and of two-headed eagles. He omits the figures with wings which occur in this sculpture, and he does not refer to the well-known representations of Asiatic deities erect on various animals. As to the supposed "mural crowns," he reproduces an observation by Professor Sayce, but I confess that Perrot's original drawings, from which he gives a somewhat inaccurate sketch, do not indicate mural crowns, but only bonnets such as are still worn by Tartar women. The sticks in their hands are not curved, as he supposes, and certainly do not represent bows. As to the Amazons, even they did not ride two-headed eagles—Herodotus mentions them as Turanians in Scythia—and it is to Professor Sayce that a suggestion of their connection with the Hittites is due. I hope hereafter to demonstrate that they were Tartar queens.

The mandrake theory does not demand more than a passing notice. In none of the known systems of hieroglyphic writing does the mandrake appear as an emblem. The Hittite (or Altaic) emblem appears to mean "male deity."

As regards the bilingual, which Professor Sayce first recognised as such, Mr. Tyler's proposals are ingenious, but not likely to be accepted. In the first instance, his reading of the name of the country is clearly wrong. The characters, as Mr. Pinches and Professor Sayce have seen, read *Urme*, not *Zume*. The emblem bears no real resemblance to the cuneiform *Zu* at any period, but is clearly the cuneiform *Ur* or *Eri*, even in comparatively early forms.

The suggestion that these hieroglyphs represent a Semitic speech

[1] "Syrian Stone Lore," p. 16.

[2] Palestine Exploration Fund, *Quarterly Statement*, April, 1888, p. 82.

contradicts the opinion of all who have given much attention to the subject. Semitic writing, as known to us, is syllabic or alphabetic—as is natural for an inflexional language—and not ideographic, as is natural to non-inflexional speech. A word like *Saeer*, containing a strong guttural, would probably be represented by two syllables, and if the second emblem on the bilingual be compared with the earliest form of the emblem *dim*, used in Akkadian, it will be seen that this value is more probable than is the tri-syllable *Kutimme*. As to the cone, Mr. Tyler follows Professor Sayce in rendering it "king," but regards the double cone as meaning "people." This is purely arbitrary, since in no known hieroglyphic system does any parallel exist, whereas, if it mean "country," which would upset Mr. Tyler's reading, it may be compared with emblems for country and mountain in Egyptian, in cuneiform, and in ancient Chinese.

Mr. Tyler is, I think, wrong in regarding the fifth emblem as unique, since it resembles an emblem often found on other texts; and certainly it in no wise suggests an idiogram for country. As regards the sixth, he adopts a comparison which I suggested in 1887[1] for the first time, only he gives the Assyrian value instead of the Akkadian,[2] in which he is, I think, wrong, since the Akkadian is the older, and because a series of strokes represents the plural in other hieroglyphic systems. According to the values which I obtain from Cypriote sounds, the Hittite emblems (so called) read *Tark-dim-Ku-ma-erme*. *Ku* and *Uk* occur for "king" in Akkadian, according to many scholars, and recall the Chinese *Chu* (older *Ku*) and the Tartar *ok*, meaning "Lord." *Me*, *Ma*, *Mu*, is a common word for "country" in Ugric speech. *Me*, for the plural, is known in the Medic, and, according to Professor Sayce, also in Akkadian.

Mr. Tyler is also unaware of the meaning of the word Tarku, or Tarkon. It is a common Tartar word for chief, and has been traced from Siberia as far as Italy, where Dr. Taylor has recognised it in the Etruscan Tarquin.[3]

As to the idea that some of the emblems on the boss are inverted, it may be noted that ancient scribes were not accustomed to write upside down as a rule.

Mr. Tyler regards the comparisons of Cypriote and so-called Hittite as "visionary." I must leave him to settle this with Mr. Perrot, Professor Sayce, Dr. Taylor, Dr. Deecke, and the other well-known scholars who hold the opposite view. The resemblances are often so remarkable and exact in detail as to leave no doubt on the mind. It is natural to suppose that the Cypriote or Asianic script, belonging as it does to the same country in which the older Altaic hieroglyphs are found, bears to them the same hieratic relation that the later Egyptian writing does to the monumental hieroglyphics of Egypt, or that the cuneiform

[1] "Altaic Hieroglyphs," Plate IV, Fig. 10.

[2] "Altaic Hieroglyphs," p. 161, Plate II, Fig. 14, p. 48.

[3] See Palestine Exploration Fund, *Quarterly Statement*, April, 1888, p. 78.

bears to the archaic Akkadian ideograms. We have also transitional inscriptions found of late, which serve to connect the early and the later incised forms.

Mr. Tyler states that I have not given the Hittite emblems in my latest work "with such essential accuracy as is desirable," but he cannot substantiate this assertion. I have studied the original monuments and the casts, and have drawn the emblems from these. Mr. Tyler's rude sketches are often clearly from drawings and photographs, and I am prepared to point out the inaccuracies of these sketches, and of his reproduction of the Yuzghâd Seal, of which a good photographic reproduction was published in 1886.[1]

As regards the texts occurring on statues of the gods, I adhere to my previous statement. At Boghaz Keui some figures, not reproduced by Mr. Tyler, are winged. The others, standing on animals, have been recognised as deities by Professor Sayce, and any student of ancient symbolism will know that he is right. A text from Jerabis, not yet in England, occurs on a plaque presenting a winged female figure. One of the figures at Ibreez certainly represents a deity. The Babylonian bowl is generally admitted to have on it a votive text, and the question of religious connection is thus reduced to a few texts which present a very similar group of emblems to those found on the texts above noticed.

Of course the "analogy of (historic) Assyrian inscriptions" cannot show that other texts must be historic, for this is purely begging the question. There are innumerable ancient texts, Akkadian, Egyptian, Assyrian, Etruscan, and Greek, which are votive, not historic. The Akkadian magic texts, as I have before noticed, present a very close parallel to my proposed readings of the so-called Hittite texts. The great stone lion in the British Museum, which I compared with the Lion of Merash (a comparison which Mr. Rylands afterwards adopted), bears an invocation to Istar; and I am unable to see that "heads of oxen and asses" have any necessary connection with war.

Mr. Tyler has not thought fit to explain my views or to state the language which I recognise on these monuments. He selects one of the most fragmentary and defective of the texts, and gives the impression that the gaps on the monument are gaps in my decipherment. Even then there is more that is consecutive than in his own arbitrary selection of portions of certain groups. If the order of the words as I place them were in accordance with English syntax, that would be a certain mark of ignorance on my part. Turanian syntax is entirely different from either Aryan, or Semitic, or Egyptian syntax. We have to deal with a language of suffixes, with a verb placed at the end of the sentence, with post-positions and affixes. It is because I am able to identify these in their proper grammatical position, and because I have recognised (as Professor Sayce admits) "packets" as in agglutinative speech, and small suffixes with larger strong roots (as he also admits), that I

[1] Proceedings Soc. Bib. Arch., November, 1886. Note by Mr. E. A. W. Budge.

feel safe in identifying the general structure of this new dialect of Turanian speech.

Mr. Tyler states that "the Hittite inscriptions are in the main ideographic or pictorial." That they are not purely pictorial is very easily proved. That they are ideographic is one of my chief contentions, and indeed I do not feel sure that I have not rather exaggerated than otherwise the exclusively ideographic value of some of the emblems.

As to the Yuzghâd Seal, I do not think any scholar will suppose it to represent the "successful chase of the stag," and Mr. Tyler's reproduction contains errors on which he bases assertions. The seal, like the Tarsus Seal, is one of a large class, possibly of Turanian origin, and probably used as amulets. The Babylonian sun deity and the bull-horned Ea occur on it, but it is as doubtful if any of the emblems have value as ideograms as in other cases. The supposed "trident" does not even in Mr. Tyler's sketch (and still less on the original) resemble a trident at all, but a tree. As regards the curious emblem (Fig. H.), Mr. Tyler adopts my suggestion that the crescent moon is intended,[1] but there is no reason why he should select the triangle only out of the several phonetic emblems which occur with it. The supposed "baby" on the Yuzghâd Seal is not a baby on the original, nor do monumental females hold unfortunate infants by the neck, but nurse them in their arms. I am not acquainted with ancient races who adored triangles, though the cone was a Phœnician sacred emblem.

Mr. Tyler's suggestion to read all the texts "hind before" will not meet with approval. All scholars are agreed that the Hittite emblems face to the beginning of the line (a comparison of H. 1, 2, 3, 5, and J. 1, is sufficient evidence), just as in Egyptian or in the early Akkadian cuneiform. It follows that all Mr. Tyler's attempts to read are vitiated by his error in reversing the texts, as well as by his arbitrary selection of a few emblems, which is contradicted by comparative study of the groups.

Mr. Tyler regards the emblem, which he incorrectly describes as a parallelogram and two squares (which is not the normal form), as "the sign for plurality." Further study will show him his error. The emblem is known in more than ninety cases, and is very frequently a prefix. In no Semitic tongue is the plural prefixed, nor is the plural emblem prefixed in any Asiatic system. It is true that Bantu languages have prefixed plural sounds, but Mr. Tyler will not find such a language in Western Asia. Clearly he is wrong about a very important emblem, and wrong because of insufficient comparative study. The Cypriote *Ne* so exactly compares with the emblem in question as to make it certain that the common demonstrative and personal pronoun of that sound, found in numberless Turanian dialects, ancient and modern, is to be recognised, and this identification, which I proposed last year,[2] has been admitted to be probable by various scholars, including Professor Sayce.

[1] "Altaic Hieroglyphs," p. 182.

[2] "Altaic Hieroglyphs," p. 39.

That the closed hand[1] represents "power" is also not a discovery of Mr. Tyler's, but a remark which I believe I was the first to make, and he cannot claim priority in fixing the value of the "foot" for going.[2] I might add a great deal in confirmation of the ideographic values which Mr. Tyler here gives—a year later than myself. The idea that the figure (Fig. K.), which commences several texts, represents "a servant," rather than a king, also suggests an observation which, I believe, was not made by any previous writer, but which I have somewhat lengthily elaborated, to the effect that this attitude signifies "supplication."[3]

The suggestion that the Babylonian bowl was carried to Babylon as a trophy I made in 1886,[4] and I am not aware that it is to be found in any book before I first made a note on the subject. As to the supposed "agricultural implements," I am familiar with the threshing sledge used in the East, and see no resemblance to the Hittite emblem, nor is Fig. N. at all like a plough, or like any ancient representation of a plough. If Mr. Tyler had compared the various recurrences of this emblem, he would not have selected this cut. The figure above (M.) is like the oldest form of the cuneiform *Ri*, and like the Cypriote *Ri*. It occurs in the name of a deity on the bowl, and there was a well-known Akkadian deity called *Ri*.

As regards the Shaduf, the suggestion is due to Professor Sayce, as should have been acknowledged. The explanation of the final group of the Hamath stone No. 3 is, to my mind, most improbable. The emblems are really used phonetically, and the supposed ideographic value is based in part on a copy from a very imperfect cast. The very abstract and philosophical meaning attributed to the emblems is not supported by our knowledge of other hieroglyphic systems.

As regards the emblem which Mr. Tyler supposes to represent Ashtoreth (and apparently he thinks that all gods had this name), no sound argument is given in support, and the group, Fig. Q., No. 2, is not correct. The identification of the sacred tree is due to Professor Sayce. The identification of the heads below, as representing "spiritual beings," agrees with a view which I proposed last year, only I regard them as demons and Mr. Tyler as gods.[5] The gods are not, however, so represented by ancient peoples, whereas similar heads representing demons are often found in Etruria and are known in Chaldea. The opposed attitude is also that in which demons are often represented, as I have long since remarked.[6] Horns are proper to demons in many ancient systems.

Mr. Tyler takes up Professor Sayce's discarded view that the Hittite emblem for deity really represents city. There is an argument in favour of its meaning deity which he overlooks. The very group which he

[1] "Altaic Hieroglyphs," pp. 52-192.
[2] "Altaic Hieroglyphs," p. 54.
[3] "Altaic Hieroglyphs," p. 53.
[4] "Syrian Stone Lore," p. 26.
[5] "Altaic Hieroglyphs," p. 206.
[6] "Altaic Hieroglyphs," p. 93.

sketches (Fig. R.) occurs on a seal, with a star (the common Akkadian emblem for deity), instead of the conventional eye.[1] As regards the central emblem, it is not always lozenge-shaped; and, as regards the eagle, Mr. Tyler adopts my view that it is the celebrated sun eagle, but does not acknowledge the loan.[2]

The remaining groups require no notice. They are read backwards, and separated from their context in an arbitrary fashion. The value *su su* is given to the emblem, which a careful comparative study would show Mr. Tyler to be the *Me* of the bilingual, and two ideographic values are borrowed from my system without acknowledgment. The remarks on Fig. U. are due to Mr. Tyler's having worked from a photograph. Had he carefully inspected the original text, he would have seen that the weathering is represented on the photograph in a misleading fashion.

The Tarsus Seal belongs to a large group. Mr. Tyler should have mentioned the Lydian and Cappadocian cylinders figured by Perrot, which are much more instructive, but in the same style, representing deities of Turanian or Semitic origin.

As regards the supposed triangle, it is, I think, a cup, like that often held by deities. It is unfortunate that in Fig. Y. a broken cuneiform emblem is reproduced lying on its side. There are numerous complete examples of this archaic form known, and in these a stroke, broken off in the specimen selected, exists, and shows that it is not a triangle, but perhaps, as Mr. Bertin thinks, a cup.

The comparison of the ankh with a Phœnician and a Hittite emblem is, I think, sound; I first proposed it in 1883, and have compared the Phœnician and Egyptian also in 1886.[3]

It would have been more to the purpose, had Mr. Tyler noted that the Cypriote value is *Er* or *Ra*, which as a Turanian word means "power."[4] The triangle has clearly no connection. The Indo-Scythian coin is also very different, and these coins are much too late to compare safely.

Mr. Tyler doubts the age of the texts. He forgets that in one case at least there is evidence that the text is older than 1340 B.C.[5]

It is no great pleasure to me to write this criticism; but before charging me with inaccuracy Mr. Tyler must look at home. He has not fairly represented my method or principles, and his proposals, as I have shown, repeat those which I have made ideographically in the majority of the emblems of which he treats. I have much yet to say on this important subject, but the above is a sufficient answer to Mr. Tyler's papers.

C. R. CONDER.

[1] "Altaic Hieroglyphs," p. 245.
[2] "Altaic Hieroglyphs," p. 82.
[3] "Syrian Stone Lore," p. 72.
[4] Palestine Exploration Fund, *Quarterly Statement*, April, 1888, p. 100.
[5] "Altaic Hieroglyphs," p. 156.

EARLY RACIAL TYPES.

THE publication of the photographs from casts taken by Mr. Petrie in Egypt gives us very valuable and authentic material for the consideration of racial types as early as the 14th and 16th centuries B.C. ; but the study of these types will not be complete until these pictures are compared with the representations of race which occur in Asia Minor, Mesopotamia, Phœnicia, and Etruria.

The cuneiform texts appear only to distinguish two races, , "race bright," and , "race dark," as mentioned also in the story of Sargina. The Egyptians, on the other hand, distinguished four races : 1, white (Lybian) ; 2, brown (Asiatic) ; 3, red (Egyptian) ; 4, black (Negro), all of which are traceable as early as the 16th century B.C.

The Bible distinguishes three races : Japhet "the fair," including the people of the Caucasus and some tribes of Asia Minor ; Ham, whose name comes from a root meaning "hot," whence the Assyrian Khammu, "midday," or the "south ;" and Shem, including the peoples usually called Semitic, and apparently meaning "dusky."

On the monuments now copied there are five very distinct types : 1, white, blue-eyed, with light hair ; 2, the red Egyptian ; 3, the bearded Semitic people, reddish or yellow ; 4, the Negro ; 5, the hairless brown or orange race, with receding forehead and a big nose from straight to aquiline.

As regards complexion, there are several points to be considered. In some cases the colours have faded, so that we have green eyes and hair. In other cases figures are alternately red and yellow for pictorial effect. As regards the red, it is not certain that this represents natural skin colour. The Guanchos, the Etruscans, the Romans, the Hottentots, and the Red Indians alike have had the custom in different ages of colouring themselves. The Zulus paint white, the Hottentots orange, the Guanchos painted red, white, yellow, and green. The Red Indians also paint themselves many colours. Again, in Etruscan pictures the men are very red or dusky, but the women are white. The great terra-cotta group in the British Museum represents an Etruscan woman yellow, and the man with her is dark or sunburnt ; yet the type of face is exactly the same : on Etruscan vases and in Etruscan tombs the men are painted red and the women left white. The colours on the monuments are, therefore, not a safe guide for the student.

As regards the four Egyptian races, the following reflections occur to me after comparing the photographs with other authentic representations :—[1]

[1] The following are the types with which I am familiar in Syria. 1. The Aramean ; dark, red-brown, aquiline, heavy beard, as seen in the Fellahin. 2. The Arab ; dusky, aquiline, scanty hair and beard, and very much lighter build. 3. The Turkoman ; approaching the Turk, with Turanian round head

1. The light people with blue eyes may be an early Aryan type. The Kabyles probably offer the nearest approach — a long-headed white race, with blue eyes and light hair, on the south side of the Mediterranean. The Guanchos seem to have been much the same. The cheekbones are said by Mr. Wallachs to be prominent, the nose straight, the forehead somewhat receding. The Guanchos were a tall well-made people. If it be the case that one of these light people is an Asiatic, it seems probable that the early Aryans spread in Western Asia earlier than scholars are inclined to suppose, and there can be little doubt that they existed in the Caucasus some time before 500 B.C. How they reached Lybia is at present unknown; perhaps by sea from Greece, or perhaps through Syria.

2. As regards the Egyptians, it is to be observed that the early statues at Boulak, like the heads from a tomb of the 6th dynasty, represent a very different type from that of the time of Rameses II; the nose is straight, the features generally less marked, and there is no beard. But this might be due to increased care in drawing.

If the reader compares this earlier type[1] with the heads of the Cappadocian deities,[2] or with the round-headed beardless type found at Tell Loh, he cannot fail to be struck with the resemblance. The later aquiline type is that presented by the mummy of Thotmes III (which I saw in 1882) and of Rameses III. It resembles the Abyssinian finest

and projecting cheekbones. The Greek, the Jew, the Persian, the Copt, the Abyssinian, the Circassian, the Georgian, the Armenian, and the Negro may also be studied in Palestine. In South Africa I have studied the Bantu (Bechuana, Basuto, and Zulu), the Hottentot, and the Bushman. In Turkey I was much struck with the Mongolian appearance of the peasantry. In Egypt I found the Fellah to be quite different to the Syrian peasant, and hardly Semitic at all. The Copt, the pure Arab, the Berberi, and Nubian I have also observed in Egypt. The type of the Red Indians who visited England struck me as very different from what I had expected, the figures being so very thick-set and the cheekbones very broad. There is a certain affinity to the Aztec and the Red Indian in the Hittite and in some Etruscan types, which is very curious. Dr. Taylor, in 1872, classed some at least of the American languages in the Turanian family.

[1] The Cushite stock—if the Tell Loh pictures are correctly described—must have been darker than the Semitic, approaching black. The "race (or blood) dark" of the Akkadian is rendered *Adamatu* "red" in the Assyrian. The dark ruddy colour of the Palestine Fellahin is at once recalled, and this might be the complexion of the Egyptians—very different from the greyer colour of the pure Arab. The modern Egyptian Fellah, like the Copt, has probably much Turanian blood in his veins. The later Egyptian language approaches in structure more closely to Turanian syntax than does the earliest Egyptian dialect.

[2] Investigating the Carian words which have survived, I find them to be all apparently Turanian, and some Scythian words given by Herodotus seem to have the same origin. The Carians were akin to the Cappadocians and Hittites, who were also Turanian.

type, and the dressing of the hair (see the great wig in the British Museum) recalls that of the non-Arab tribes of the Soudan.

3. The Semitic type is very clearly marked by the aquiline features, the beard, and generally by the head-dress, resembling the modern Kufeyeh. The side curls, plaited and often very long, which occur on these photographs, were worn by the Phœnicians, and are still worn by the Bedouin.

4. Both the Rutennu and the Hittites present a Mongolian type, with brown or orange complexion, sometimes reddish. Generally, but not always, they are beardless. The hair appears to be dark, when coloured at all. The Rutennu, in some cases, are more Mongolian than the Kheta, whose noses are often aquiline. The receding forehead and chin and aquiline nose occur, however, among the modern Kirghiz. The general type is not unlike the extremely exaggerated Etruscan type, with a big long nose, high cheekbones, and very slanting eyes, with black hair and receding forehead. The pigtail of the Kheta is not known in Etruria. The heads on Hittite monuments (such as J., I and III) approach the Egyptian representation of some of the Kheta. The Kheta chiefs were perhaps not pure Mongols, but had Semitic blood in their veins; but the head of a modern Kirghiz is as like the Hittite type as it is possible to conceive. The Kirghiz are a mixed Turko-Mongolian race, speaking a Turkic language. The bearded big-nosed heads at Ibreez are illustrated by a bearded Kheta chief on these monuments. In Chaldea, also, we have bearded non-Semitic portraits,[1] and bearded figures occur also in Etruria.

The two races of the cuneiform documents were perhaps the Northern Aryo-Turanian and the Southern Egypto-Semitic. The new monuments appear to connect Kush with the Egyptians (as does the Bible). The division agrees with the present scientific view as to the relationship of Aryan and Turanian, Semitic and Egyptian languages, but the early home of the southern race is still doubtful.

[1] The Bible connects the Canaanites and the Philistines with the Egyptians and the Cushites; and the Hyksos, the Kheta, and the later Egyptian facial types are not far apart, but the Egyptian and Kheta languages are very distinct. Although race does not of necessity involve language, it seems to me that the distinction has of late been exaggerated. It must be to a somewhat late period that a change of language in any race is to be attributed, otherwise language would not develop at all. The approximation of Kheta and Egyptian types may be due to the infusion of Semitic blood in both. It seems that the division in Genesis x is geographical rather than ethnic, belonging to an age when it was already impossible to distinguish race very clearly, since the migrations of the various stocks had been going on for many centuries, and mixed breeds of all kinds already existed. There were, however, most Semites in the south-east or east, most Aryans in the north, while Ham ("the south") included the Turanian Canaanites and the Asiatic Egyptians. The Egyptian language shows how very early Turanians reached Egypt, importing 150 Turanian words into a distinct language which is nearer in structure to the Semitic. By 2000 B.C. also a large Semitic element had found its way to the Delta.

It may be regarded as fairly certain that the Turanians came from the region south of the Caucasus and perhaps from further east, and the Aryans perhaps divided off, and had their home in the valleys of the Volga, and the Don ; the southern race perhaps belonged originally to the Mesopotamian valley. As to the European origin of the Aryans, the evidence is not strong, and the subject has not been worked out to its full bearings. Scholars have argued for a Semitic race in Chaldea preceding the Akkadians, and there are no river-valleys in Arabia to form their home. Either they reached Arabia from the Nile in Africa, or they spread south from the Euphrates, which appears most probable, since the true Egyptian type has been long since pronounced to be Caucasian, and is very different from the Negro, the Nubian, or even from the type of the people of Pun, which is nearer perhaps to the Bantu.

The identification of the names of some of the tribes represented at Karnak is tolerably certain, including Amorites, Hittites, the Shasu, or nomadic Arabs, the Derdeni, or Dardanians (a bearded people), the Rutennu, or Canaanites, and the inhabitants of Ascalon and Damascus. Others, such as the supposed Etruscans, Cicilians, Sardinians, and Teucrians, are, to say the least, doubtful. If the Pulistha be correctly identified as Philistines, it is interesting to note that their headdress is the same worn by the Takrui, or supposed Teucrians. Their appearance is non-Semitic, and perhaps Turanian. This would seem to agree with Hitzig's theory that the Philistines were akin to the Pelasgi, or pre-Aryan race of Greece, and the Philistine names in the Bible often appear to be non-Semitic.

The peculiar helmet of the Shakalsha is found also on statues from Cyprus, and other Cyprian statues (called Phœnician) give headdresses very like that of the Pulistha. Some of these statues are beardless, with slanting eyes.

In this connection it seems important to consider the evidence lately brought forward in support of the supposition that the Aryans were of Finnic extraction. The arguments are three :—1st. Comparison of the roots of Aryan and Finnic speech. 2nd. The fair complexion of the Aryans, supposed to indicate a northern origin. 3rd. The early existence of words in Aryan languages denoting a northern European fauna and flora. Neither of these arguments is, however, very strong. 1st. The roots in question are found also in Akkadian and in Tartar languages, as well as in Finnic and Aryan. 2nd. The fair race has preserved apparently its blue eyes and light hair, though dwelling for two or even four thousand years in North Africa. 3rd. The fauna and flora are not peculiar to Northern Europe, as has been supposed by those supporting this theory. This last point may be noticed in detail. The oak grows well in Palestine and Asia Minor. The beech is found all over the north of Asia, and the birch in Turkestan and Mongolia. Snow and ice are common in Palestine and Turkestan. The bear, the wolf, the stag (roe and fallow deer), the goose, the crane, the starling, the wasp, and the bug, all occur in Syria

and in Central Asia. The eel is very susceptible of cold, the oyster occurs in the Persian Gulf. Barley is common, wheat is scarce, in Palestine. The elk occurs in the Caucasus and in North China. The seal is found in the Caspian and in the Aral, and Lake Baikal. The salmon in Asia Minor and in the region of the Hindu Kush, as well as in Algiers. Thus the linguistic evidence on which the new theory has been based crumbles away when examined by the aid of such a work as Wallace's "Distribution of Animals," or Tristram's "Natural History of the Bible." It also appears that the horse must have been known to the early Aryans, and the home of the horse is certainly not in Finland, but in Central Asia.

The general result of such considerations seems to show how much caution is required in treating the question of the early populations of Western Asia.

C. R. C.

NOTES ON THE PLATE.

Turko-Tartar types.

No. 1. From photograph of a Kirghiz Tartar in Schuyler's "Turkestan," vol. i, page 42.
No. 2. Tartar boy of Tashkent, from same, vol. i, page 142.
No. 3. Tartar elder, from same, vol. ii, page 28.
No. 4. Samarkand Tartar, from same, vol. ii, page 107.

Canaanite.

No. 5. Hittite from Karnak monument, cast by Mr. Flinders Petrie (compare No. 1).
No. 6. Rutennu, from the same.
No. 7. Syrian, bearded, from the same (compare No. 3).
No. 8. Syrian, from the same.

Asia Minor and Syria.

No. 9. From Hittite text, J., I (compare the cap with Nos. 2 and 3): the pigtail is curled up.
No. 10. Beardless God at Pterium. From Perrot (vol. iv, page 639, "Histoire de l'Art").
No. 11. King from Ibreez, perhaps Semitic, but with a Hittite text (Sketch by Davis), same publication, page 725.
No. 12. Rutennu, from cast by Mr. Flinders Petrie (compare with 2, 4, 9, 10).

Akkadian.

No 13. Head of a statue from Tell Loh, from photograph in de Sarzec's "Découvertes en Chaldée;" found with Akkadian texts.

No. 14. Same source (compare the cap with No. 1).
No. 15. Bronze figure, same source, bearded, but with non-Semitic features (compare No. 3).
No. 16. Same source (compare Nos. 1 and 5).

Western.

No. 17. Etruscan, after a sketch by Dr. Isaac Taylor.
No. 18. From Cyprus, supposed to be Phœnician (from Perrot's "Hist. de l'Art," vol. iii).
No. 19. From Cyprus (same source), perhaps female. This type with slanting eyes and long nose is also found on Etruscan monuments.
No. 20. Cyprian (same source).

Southern.

No 21. Pulestha (Philistine ?), from Karnak monument. Cast by Mr. Flinders Petrie.
No. 22. Takrui (Teucrian ?), same source, showing same head-dress.
No. 23. Ascalon, a male captive, from cast by Mr. Flinders Petrie.
No. 24. Early Egyptian type (same source).

There are many other similar heads in the various collections from Egypt, Cyprus, Asia Minor, Chaldea, and Etruria, giving the round-headed beardless types, with broad cheekbones and eyes sometimes slanting as on this specimen plate.

NOTES ON CALVARY.

In a pamphlet published in 1886 at Jerusalem, and in a recent letter to the "Sunday School Times" in America, Dr. Selah Merrill intimates that, in advocating the site at Jeremiah's Grotto as Calvary, I am appropriating discoveries of Otto Thenius in 1849, and of Fisher Howe in 1871. I have never seen the works of either writer, and do not know what they may say as to Calvary. It is very probable that this hill suggested itself to many visitors as the true site ; but what I was, I believe, the first to publish was not the *theory*, but the *tradition*, connecting the site with the Jewish place of execution. Dr. Merrill mentions this tradition without giving his authority, but he fails to point out that this was the chief reason for my fixing on the site. When I was in Jerusalem in 1874–75 the site of Calvary was regarded by residents as being a knoll west of that which I suppose to be the site. Dr. Chaplin, as I have said, called my attention to the Jewish tradition, and sent Jews to see me on the subject. Our enquiries then established the site to which they referred, and, as far as I know, this was never previously brought to public notice. From what he says, Dr. Merrill is apparently afraid lest this discovery should be attributed to himself, and the present note may serve to relieve his apprehensions. C. R. C.

THE CROCODILES IN THE NAHR EZ ZERKA.

THE only place in Palestine where—according to natives—crocodiles are found is the Zerka river, near Cæsarea. They are mentioned as corcodrils by Sir John Maundeville. The following passage from a tract of the 13th century is interesting, as perhaps founded on some fact which may account for the presence of crocodiles in this river. The salt pans mentioned are those at El Melât and elsewhere along this coast, as mentioned in the "Palestine Survey Memoirs":—

"From Chastel Pelerin ('Athlit) one goes to Cæsarea. The city stands by the sea, where one finds on the right hand (*i.e.*, of the road) the salt pans of the Hospital of St. John, and then by the sea one finds Panperdu, a tower of St. Lazarus (*i.e.*, of the order so called). On the other side, to the left hand inland, is a church of Our Lady of the Marshes (*i.e.*, of the Zerka), and there come many folk in pilgrimage from Cæsarea and from Chastel Pelerin. In this marsh are many cocatrices—fierce beasts which were put there by a rich man of Cæsarea, and he had them fed, for he would have them devour his brother, because of a quarrel he had with him, and for this he had them brought from Egypt. And one day he brought his brother to bathe, secretly to slay him. And his brother was wiser than he, and made him go down first, and the beasts which he had fed so soon dragged him down that he might never be found, and the treason was known through those who had agreed to it, and thus was the traitor lost and his brother saved."— (*See* "Publications de la Société de l'Orient Latin, Série Géographique III," p. 191).

C. R. C.

NEBI DHAHY.

IN the "Memoirs" (vol. ii, p. 132) I have given the legend of the dog who buried Neby Dhahy or Duheiyeh. This may be connected with Dahya el Kelbi (the dog-like Dahya), who was one of the early converts to Islam before the Battle of the Ditch.—(*See* Rodwell's "Koran," p. 409.)

C. R. C.

THE "*VIA MARIS*."

I HAVE read with much interest Herr Schumacher's survey of "The Jaulan," and shall be much obliged to any reader of the *Quarterly Statement* who will explain the ground for his identification of the *Via Maris* of antiquity with the caravan road which bisects Upper Jaulan in the direction of Akka and Haifa, as described on page 65 of the English translation of his work.

The question is of some importance in connexion with the right interpretation of Isaiah ix, 1, and S. Matthew iv, 13 to 16. Commentators are

divided. Some take the words "Way of the Sea" to mean merely the inhabitants of the neighbourhood of the Lake; others restrict the words to the tract of land *west* of the Lake; others again seem to place "The Way of the Sea" wholly "beyond Jordan," or *east* of the Lake. Following a hint given by Lightfoot (Chorog. Cent., ch. 71), I had thought that "The Way of the Sea" might be a narrow strip or "full line" of dry land on the east coast of the Lake, belonging to Naphthali, whereon the fishers of Naphthali might "draw out their nets," for (according to Lightfoot) the Lake was wholly within the territory of Naphthali.

In the midst of all this uncertainty, it is refreshing to learn that the *Via Maris* is simply a "well-known and important commercial highway" connecting Damascus with the Mediterranean Sea; that it crosses the Upper Jordan at the Bridge of Jacob's Daughters; and that it is much frequented, though in a ruinous state, at the present day. Perhaps Josephus (Ant. v, i, 22) is merely alluding to the point at which the *Via Maris* crosses the Jordan, when his words *seem* to include the city of Damascus within the portion of Naphthali—an interpretation which Lightfoot (*l. c.*) says "would be ridiculous."

Can the identification of the *Via Maris* of Isaiah ix, 1, with Herr Schumacher's "third principal and caravan road" be substantiated? And, if so, what does the phrase mean in Kings xix, 43?

CHARLES DRUITT.

METEOROLOGICAL OBSERVATIONS.

1880.

THE numbers in column 1 of this table show the highest reading of the barometer in each month; of these, the highest appear in the winter, and the lowest in the summer months. The maximum for the year was in January, viz., 30·269. In column 2 the lowest in each month are shown; the minimum, 29·489 ins., was in April; the range of readings in the year was 0·780 inch. The numbers in the 3rd column show the range of readings in each month; the smallest is in October, being a fifth of an inch, whilst the largest is in April, being somewhat more than half an inch. The numbers in the 4th column show the mean monthly pressure of the atmosphere; the largest is in January and the smallest in July.

The highest temperatures of the air in each month are shown in column 5. The highest temperature in the year was 103° in May, but the temperature exceeded 90° in every month from April to November. The first day in the year the temperature reached 90° was on April 12th, and there were two other days in this month when the temperature was more than 90°; in May there were five days when the temperature reached and exceeded 90°; the highest, 103°, took place on the 23rd. In June there were two such days, in July six days, in August seven days, in September

nine days, the highest of which, on the sixth day, was 102°; in October four days, and in November one day—on the 4th, when the temperature was as high as 96°, and this was the last day in the year of such a high temperature as 90°; therefore the temperature reached and exceeded 90° on 36 days in the year.

The numbers in column 6 show the lowest temperature of the air in each month; in January it was as low as 32° on two different nights, and was below 40° on three other nights; in February it was as low as 32° on one night, and below 40° on four other nights; in March it was as low as 34° on the 17th, and below 40° on two other nights; and the temperature was not below 40° in any other month of the year: therefore the temperature at night was as low as 32° on three nights, and it was below 40° on thirteen nights in the year. The yearly range of temperature was 71°. The range of temperature in each month is shown in column 7, and these numbers vary from 25° in August to 53° in both April and May.

The mean of all the highest temperatures by day, of the lowest by night, and of the average daily ranges of temperature are shown in columns 8, 9, 10, respectively. Of the high day temperatures the lowest was in January—58°·5—and the highest in July, August, and September. Of the low night temperatures, the coldest, 42°·9, took place in January, and the warmest, 69°, was in August. The average daily range of temperature, as shown in column 10, in January—15°·6—is the smallest, whilst that in December was of nearly the same value; and the largest was in May—23°·9.

In column 11, the mean temperature of each month, as found from observations of the maximum and minimum thermometers only. The month of lowest temperature was January, 50°·7, and that of the highest was August, 79°. The mean temperature for the year was 66°·4.

The numbers in columns 12 and 13 are the monthly means of a dry and wet-bulb thermometer taken daily at 9 a.m.; and in column 14 the monthly temperature of the dew point at the same hour, or that of temperature at which dew would have been deposited. The elastic force of vapour is shown in column 15, and in column 16 the water present in a cubic foot of air in January was as small as $3\frac{1}{4}$ grains, whilst in July it was as large as $9\frac{1}{4}$ grains. The numbers in column 18 show the degree of humidity, saturation being condensed as 100; the smallest number is in April, and the largest numbers are in January and September. The weight of a cubic foot of air under its pressure, temperature, and humidity at 9 a.m. is shown in column 19.

The most prevalent winds in January were S.E. and S., and the least prevalent were N. and N.W. In February the most prevalent was S.E., and the least prevalent N. and N.W. In March the most prevalent were N.E. and W., and the least prevalent N. and N.W. In April the most prevalent was S.W., and the least were N., N.E., and E. In May the most prevalent were W. and its compounds, and the least N., S.E., and S. In June, July, August, September, and October the most prevalent were the S. winds, and the least prevalent were N., E., and its compounds.

In November the most prevalent were S.E. and S.W., and the least prevalent were N., N.W.; and in December the most prevalent wind was S., and the least prevalent were N. and N.W.

The numbers in column 29 show the mean amount of cloud at 9 a.m.; the month with the smallest amount is June, and the largest March. Of the cumulus, or fine weather cloud, there were 111 instances in the year; of these there were 15 in May, 17 in June, 18 in July, and 19 in August, and but 2 only in each of the months February and December. Of the nimbus, or rain cloud, there were 58 instances in the year, of which 12 were in January, 12 in February, and 13 in December, and but 3 only from May to October. Of the cirro-cumulus there were 38 instances; of the cirrus, 41; of stratus, 10; and cirro-stratus, 5. There were 103 instances in the year of cloudless skies, of which 15 were in September, 12 in June, 12 in October, 10 in August, and 9 in May and November.

The largest fall of rain for the month was in December, 10·05 ins., of which 1·37 in. fell on the 7th, 1·24 in. on the 8th, and 1·08 in. on the 6th. The next largest falls for the month were in January, 5·32 ins., and in November, 4·95 ins., of which 2·15 ins. fell on Nov. 28th, and 1·11 in. on the 29th. No rain fell from the 2nd of May till the 18th of October, making a period of 168 consecutive days without rain.

James Glaisher.

THE
PALESTINE EXPLORATION FUND.

NOTES AND NEWS.

We hear from Herr Schick that a cave has been found in Jerusalem itself at a depth of no less than 47 feet 6 inches below the surface. The discovery was made in certain excavations conducted by the Russians south-east of the Church of the Holy Sepulchre. When the cave is cleared out he will report further upon it. Additional vaults of masonry have also been found in the Muristan.

Some years ago the Russian mission acquired a piece of land near the ancient site of Jericho. In digging for a foundation, capitals, pillars, lintels, iron weapons and instruments, pottery lamps and jars, brass or bronze trays, candlesticks, rings, &c., have been found—in fact, all the indications of important buildings. The Russian Exploration Society are erecting new buildings for hospices, &c., to the north of the Russian buildings.

Herr Schumacher reports the discovery of a cave near Nazareth, which he thinks will prove of great interest in connection with Mediæval traditions.

We have also received from Herr Schumacher his detailed Report of an examination of Abîl—the Abila of the Decapolis—situated in the south bank of the Yarmûk. The Report contains a plan with numerous illustrations. It will be published next year.

The University of the South has conferred upon Major Conder, R.E., the degree of D.C.L., Honoris Causâ; the other honorary degrees for the year conferred on Englishmen being Prebendary Rowe, D.D., and Rev. J. A. Hewitt, D.D.

The Lists of Old and New Testament names and identifications, with the references to Josephus, are now ready. Subscribers can have copies of the latter, separate, at 1*s.*, and of the two together, in paper cover, for 3*s.*, and bound for 3*s.* 6*d.*, by application to the office only. To the general public the price of the book is 6*s.*

As already announced, with the view of clearing off the MSS. which await publication, the Committee have resolved on issuing an edition, in form similar to, and uniform with, the "Survey of Western Palestine," of the following works:—

1. Conder's "Survey of Eastern Palestine," so far as completed. The MS. is very voluminous, containing as much as will make a volume equal in size to those of the "Memoirs" in the "Survey of Western Palestine." None of it has been published; the drawings are very numerous, and of the deepest interest to the student of prehistoric monuments, as well as for the illustration of the Bible.
2. The Archæological Mission of M. Clermont-Ganneau, with the drawings of M. le Comte.

   These drawings are many hundreds in number, and executed in the finest style. They figure a vast number of monuments and ruins not in the "Memoirs."
3. The Flora and Fauna of the Wâdy Arabah, by J. Chichester Hart, Esq., accompanied by many drawings of plants, &c., in the best style.

The editions will be limited to 500. The first 250 subscribers will pay seven guineas for the three volumes, with an index; subscribers to the "Survey of Western Palestine" will be privileged to have the volumes for this sum. The price will be raised, after 250 names are received, to twelve guineas. The Committee *are pledged never to let any copies be subscribed under the sum of seven guineas.* Mr. A. P. Watt, 2, Paternoster Square, is the agent.

Mr. A. P. Watt has now received a sufficient number of names to warrant the commencement of the publication of the Eastern Survey, the results of M. Clermont-Ganneau's Mission and Mr. Chichester Hart's Mission. Intending subscribers to these most important and valuable works are requested to send their names to Mr. Watt (2, Paternoster Square) without delay.

The Palestine Pilgrims' Text Society has now issued the following works:—

1. "The Holy Places visited by Antoninus Martyr."
2. "The Pilgrimage of the Holy Paula."
3. The Buildings of Justinian. By "Procopius."
4. The Description of Syria. By "Mukaddasi."
5. "The Bordeaux Pilgrim."
6. "The Abbot Daniel."
7. "The Crusader's Letter from Acre to England."
8. "The Norman-French Description of the City and the Country." Translated and annotated by Captain Conder, R.E.
9. "The Travels of Nasîr-i-Khusrau." Translated by Guy Le Strange.

In the press, and will be issued before the end of the year:—

"Arculfus de Locis Sanctis." Translated by Rev. R. Macpherson, and annotated by Sir Charles Wilson.

The friends of the Society are earnestly requested to use the "Memoirs of Twenty-one Years' Work" as a means of showing what the work has been, and what remains to be done.

Subscribers are very earnestly asked :—(1) To pay their subscriptions early in the year—say in January. (2) To pay them direct to Coutts and Co. by a banker's order. (3) If they would rather choose their own time, to send up their subscriptions without being reminded. The Clerical Staff of the Society is small; it is most desirable not to increase it; and if these simple requests are attended to a great saving of clerical labour, postage, and stationery is effected. For instance, there are, say, 3,000 subscribers. If every one of these waits to be reminded, and has to have a receipt sent to him, the Society has to spend £25 a year additional in postage, and to write 6,000 letters, merely to ask for and to acknowledge the receipt of the subscriptions.

It has come to the knowledge of the Committee that certain book hawkers are representing themselves as agents of the Society. The Committee have to caution subscribers that they have no book hawkers in their employ, and that none of their works are sold by any itinerant agents.

The Rev. James Neil, author of "Palestine Explored," has issued a pamphlet called "Strange Scenes," in which, for one penny, he gives a series of illustrations of the Bible taken from the country itself—with forty illustrations by Mr. H. A. Harper. The publishers are Messrs. Woodford, Fawcett, & Co., Salisbury Square, E.C.

The following books are now published uniform in size and appearance :—Conder's "Tent Work;" Conder's "Heth and Moab;" Schumacher's "Across the Jordan;" "The Memoirs of Twenty-One Years' Work;" Conder's "Syrian Stone Lore;" Conder's "Altaic Inscriptions;" and Schumacher's "Jaulan." Subscribers can have the whole set, together with Hull's "Mount Seir," and Names and Places, for 32*s.*, carriage free.

Mr. Armstrong has prepared a list of the photographs belonging to the Society, arranged alphabetically according to those Bible names which are illustrated by views. This list is now ready. Those who wish for a copy may send in their names.

The income of the Society, from June 22nd to September 17th, 1888, inclusive, was—from subscriptions and donations, £122 0*s.* 0*d.*; from all sources, £296 7*s.* 3*d.* The expenditure during the same period was £269 18*s.* 10*d.* On June 21st the balance in the Banks was £235 18*s.* 3*d.*

Subscribers who do not receive the *Quarterly Statement* regularly are asked to send a note to the Secretary. Great care is taken to forward each number to all who are entitled to receive it, but changes of address and other causes give rise occasionally to omissions.

It does not seem generally known that cases for binding the *Quarterly Statement* can be had by subscribers, on application to the office, at 1*s.* each.

While desiring to give every publicity to proposed identifications and other theories advanced by officers of the Fund and contributors to the pages of the *Quarterly Statement*, the Committee wish it to be distinctly understood that by publishing them in the *Quarterly Statement* they neither sanction nor adopt them

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The only authorised lecturers for the Society are—

(1) Mr. George St. Clair, F.G.S., Member of the Anthropological Institute and of the Society of Biblical Archæology.
His subjects are :—

(1) *The General Exploration of Palestine.*
(2) *Jerusalem Buried and Recovered.*
(3) *Buried Cities, Egypt and Palestine.*
(4) *Buried Cities of Mesopotamia*, with some account of the Hittites.
(5) *The Moabite Stone and the Pedigree of the English Alphabet.*

Address: Geo. St. Clair, Bristol Road, Birmingham, or at the Office of the Fund.

(2) The Rev. Henry Geary, Vicar of St. Thomas's, Portman Square. His lectures are on the following subjects :—

The Survey of Western Palestine, as illustrating Bible History.
Palestine East of the Jordan.
The Jerusalem Excavations.
A Restoration of Ancient Jerusalem. Illustrated by original photographs shown as "dissolving views."

(3) The Rev. James King, Vicar of St. Mary's, Berwick. His subjects are as follows :—

The Survey of Western Palestine.
Jerusalem.
The Hittites.
The Moabite Stone and other monuments.

(4) The Rev. Thomas Harrison, 38, Melrose Gardens, West Kensington Park, W. His subjects are as follows :—

(1) *Research and Discovery in the Holy Land.*
(2) *In the Track of the Israelites from Egypt to Canaan.*
(3) *Bible Scenes in the Light of Modern Science.*

NARRATIVE OF A SCIENTIFIC EXPEDITION IN THE TRANS-JORDANIC REGION IN THE SPRING OF 1886.

N.B.—*I have adopted generally, for obvious reasons of convenience, the orthography of proper names used by the P. E. F. in maps and other publications.*

The object of the expedition, of which the following is a narrative, was the study, in the field, of the Flora of Moab, Gilead, and Haurân, with special reference to the forthcoming Flora of Syria and Palestine, and to observe and collect the birds of the same region, to be added to the collections of the Syrian Protestant College, with a view to the ultimate preparation of a work on the Ornithology of the same district. In addition to these, the prime objects of the expedition, accurate observations were made and recorded of the readings of two aneroids, one of Browning's and the other of Watson's make, with a view to settling the altitude of the places visited. The *personnel* of the expedition consisted of Dr. Thomas W. Kay, Professor of Zoölogy in the Syrian Protestant College, Mr. Daûd Salîm, B.A., an advanced medical student in the same, and the author. The time chosen was that in which the greatest number of plants are in season, some traces of those of the early spring being still found, while the summer plants are in many cases in a sufficiently forward state to enable one familiar with the botany of the country to determine them. As far as the Ghor is concerned, this journey was supplementary to a hasty one made in 1882, but not extended to the Shittim plain.

The barometers used during this journey were observed during the two months preceding at the Observatory of the Syrian Protestant College at Beirût. The mean for the whole of this period, corrected for the sea level, was 30·04 inches. At 5 p.m. of the day we left Beirût for Jaffa it was 29·99 inches. In the following notes B. will stand for Browning's and W. for Watson's barometer.[1]

April 19.—As Jerusalem was to be our base of operations, we went first to Jaffa by sea, taking with us only our scientific apparatus and personal baggage, leaving the arrangement of tents, transportation, and provisions to be made at Jerusalem. We had entered upon the season of steady, fair weather, and enjoyed a very quiet sail to Jaffa, arriving early next morning.

April 20.—At 7.30 a.m. we disembarked. Barometers : B., 30·05 ; W. 29·8 ; mean, 29·92. This observation was taken exactly at the sea level.

[1] I have chosen to record both readings, as well as to give the mean, owing to the fluctuations, for which I am unable to assign a reason. It had been my intention to take also a portable mercurial barometer, but it was unfortunately broken, and could not be repaired in time. I share the opinion of M. Barbey, expressed in his "Herborizations au Levant," as to the unreliability of aneroids for determination of altitudes.

From Jaffa to Jerusalem we made use of one of the rough wagons belonging to the German colonists, and drove over the ill-kept road, which seems to be worse every time one passes over it. We only noted the plants which lay along our road, as we had no time to go to any distance in search of specimens. We observed in the hedges of Jaffa Vicia sericocarpa, Fumaria Judaica, Lycium Barbarum, Urtica pilulifera, and U. membranacea, Acacia Farnesiana stretching its thorny arms over the road, Bryonia Syriaca trailing in and out among the hedges, Ephedra campylopoda, Rubus collinus, and Smilax aspera, var. Mauretanica.

Among the plants noted on the road to the foot of the mountain, beside the commoner species of the maritime plain, we find Silene Palæstina, Krubera peregrina, Ferula communis, Malcolmia pulchella, Cachrys goniocarpa.

All along the road women and children were seen gathering out weeds, especially tares, from among the wheat. The men were ploughing the ground to prepare it for Sorghum. This seed differs from that of wheat and barley in not requiring rain to cause it to mature, and so may be sown late in the spring, when it will get little or no moisture save that in the soil. The grain is not only fed to camels, but ground to make bread for the peasantry. In one case we passed a single camel yoked to a plough. Sometimes a team is made of a camel and an ass, the former being attached to the shorter and the latter to the longer arm of a rude sort of a yoke.

At Bab-el-Wad, at the foot of the mountains, half-way from Jaffa to Jerusalem, we stopped to bait our horses, who require three feedings to get them to Jerusalem. There is a small hotel here, where a botanist who desires to study the flora of this region may find lodging and a frugal diet. In fact, there were two young Americans then staying there, engaged in collecting flowers for ornamental books illustrative of the flora of Palestine. There is also a miserable café by the roadside. We ordered some coffee, and, being entitled to two piastres in change, we received coppers in nominal value thirteen piastres, and in weight about half a pound. The coinage of Turkey is unknowable. The nominal unit of value is a piastre, but no one has ever seen a coin which represents this unit. It is true that there are numerous coins stamped with the name piastre and fractions of a piastre, but they differ in value in every town. One piece, nominally a piastre, is worth half a piastre in one place and a little less in another, and more in another. A twenty-piastre piece is worth nineteen in one place, twenty-three in another, twenty-six in another, but not these numbers of any actual coin, but of an ideal piastre, which has no existence. In Beirût a Turkish gold medjeedie is worth $123\frac{1}{4}$ piastres, in Jerusalem $124\frac{1}{2}$, and so on. Accurate accounts in such a state of the coinage are quite impossible. There are many coins circulating at half, or a quarter, or even an eighth, of their nominal value. The paper issues of the Government are absolutely worthless.

The way from Bab-el-Wad to Jerusalem lies at first up the valley; it

then passes over several spurs of the mountain, making in some places a considerable descent, with corresponding loss of time in regaining the lost altitude. The most common trees on the road are the terebinth, the ever-green oak, and the olive. The Arbutus Andrachne is one of the most conspicuous of the shrubs. There is also an abundance of Calycotome villosa and Rhamnus Palæstina. It soon grew too dark to botanize, and we did not arrive in Jerusalem until half-past ten at night, twelve hours after leaving Jaffa. Barometer: B., 27·37; W., 27·20; mean, 27·285, at level of second floor of the Mediterranean Hotel.

The birds observed during the day were Passer domesticus, Merops apiaster, Alauda cristata, Carduelis elegans, Accipiter nisus, Milvus sp., Saxicola sp. We also saw a few lizards.

Wednesday, April 21, 7 a.m.—Barometer: B., 27·39; W., 27·19; mean, 27·29, which indicates a height of 2,500 feet. We had received a hospitable greeting the night before from Rev. S. Merrill, D.D., then U. S. Consul at Jerusalem. We had hoped for his company during the journey, but he was unable to leave his post at that season owing to the great number of American travellers in Jerusalem. We thus lost his valuable experience of the country east of the Jordan, in the knowledge of which he is not equalled by any traveller, having spent many years in studying its archæology, geography, and natural history.

We had great difficulty in arranging for animals to carry our impedimenta and ourselves, as the horses and mules not actually on the march with travellers were all at grass. At last, however, we arranged, through Cook's agency, for the nine animals required, and for a cook, and the stores necessary for a twenty-days' tour. But as there was no hope of our getting off on that or the following day, we had time to see so much of Dr. Merrill's fine collection of bird and animal skins as was not already packed to be shipped. It is, perhaps, with the exception of that of Canon Tristram, the most complete in the world for Palestine. Among other varieties he has the skin of an otter from the Jordan and a wolverene from the wilderness of Judea; also a lizard from the Syrian Desert, about a yard long, of which a specimen (unnamed) exists in the museum of the Syrian Protestant College. The number and variety of birds' skins is very great. This collection is now at Andover, in the United States.

Thursday, April 22.—Barometer: B., 27·36; W., 27·12; mean, 27·24. The morning was filled up with arrangements for the journey. Among others, we secured the services of Sheikh Felah Nimr, and his brother, 'Ali Nimr, of the tribe of 'Adwân Arabs in Northern Moab, to conduct us as far as Ma'în on the following terms:—

1st. Three medjeedies (silver) a day during the period of our stay in the dominions of their tribe.

2nd. Should we go further to the southward, as, for example, to Callirrhoë or Kerak, four medjeedies a day.

3rd. They should have no claim to food, but would expect an occasional invitation to a meal. (This practically means that they expected to live off our table.)

4th. At the end of the journey they are to have 5 lbs. of coffee and the same quantity of sugar as a gratuity.

5th. In case of our wishing to pursue our journey into the territories of the Arabs of Gilead, Sheikh Felah agrees to make an arrangement with Sheikh Shibly of that tribe at the same rate.

To confirm our bargain, one Turkish lira was paid down on the spot, and although no contract was written Dr. Merrill assured us that all would be as verbally agreed. We merely noted down the terms as a memorandum to ourselves.

I then made the circuit of the city walls, and found a flora somewhat peculiar to such localities, as Sisymbrium pumilum, Silene apetala, S. racemosa, Willd., Lepidium sativum, Linum Hælava.

A feature of these plants is that they are more or less stunted by the thinness of the soil and the exposure to the sun. I was unable to complete the circuit of the walls as I had once before done, owing to the peculiar fanaticism of the Moslem pilgrims caused by the return of the sacred banner from Nebi Musa. The annual pilgrimage to Nebi Musa is of modern origin, and was devised by the Turkish Government as an offset to the Christian and Jewish ceremonies of Easter and Passover. For the convenience of the pilgrimage, which would have been difficult, if not impossible, had the shrine been on Nebo, where it ought to be, the story was invented that Moses fled from his impending fate on Nebo, crossed the Jordan into the wilderness of Judea, and was not overtaken by the Angel of Death until he reached the site of the present shrine. During Holy Week the peasants throng into Jerusalem from all directions, and march to the sound of drums and pipes and singing down to Nebi Musa, which is situated on a rocky ledge above the Dead Sea, about three-fourths of the way from Jerusalem to the plain. Each company of pilgrims sacrifices a lamb, and eats it with singing and dancing. The banner, furnished by the Turkish Government, which has been taken down by a squad of Turkish cavalry, is escorted back also by the motley throng of pilgrims, and as the procession files around the shoulder of the Mount of Olives, at the very spot where we may fancy the children meeting our Saviour with their hosannahs, it is greeted with salvoes of artillery, posted at St. Stephen's Gate, and the shouts of the multitudes on the hillsides overlooking the Valley of Jehoshaphat and on the walls and towers of the city. The scene has points of resemblance to the triumphal entry of our Lord which make it extremely suggestive, and is one of the most striking spectacles of Passion Week.

Late in the afternoon our riding horses were brought for trial. The Orientals are extremely unfeeling in the matter of riding and loading animals with sore backs; almost all the horses brought for trial had bad ulcers under the saddle pads. At last, after rejecting a considerable number of animals, we found some with backs which, by dint of special padding to avoid the sore places, could bear the saddle.

In the evening I had the pleasure of an introduction to Professor Lewis, of the Committee of the Palestine Exploration Fund, with whom I

had a conversation in regard to the projected journey, and also in respect to the desirability of establishing in connection with the College at Beirût of a library of reference composed of works bearing on Oriental research, and a museum of Biblical archæology and natural history for the use of scholars who may wish to pursue their studies in the East.

Friday, April 23.—Barometer: B., 27·38; W., 27·16; mean, 27. No journey in the East can be begun without a controversy the first day in regard to the loads, no matter how explicit has been the bargain; the muleteers always pronounce the loads too heavy, and hope by delays at the last moment to force the traveller to take an extra animal or two. With a little firmness and patience, however, we were under way at half-past nine in the morning.

The vegetation along the road from Jerusalem to Jericho is the same as that of the table-land of Palestine until about half an hour before reaching Khan Hathrûrah, when the desert types suddenly begin to appear. The first of these plants that is met is Statice Thouini, then Chenolea Arabica, Erodium glaucophyllum, Fagonia mollis and F. grandiflora, Glaucium corniculatum. At Khan Hathrûrah the mean of the barometer was 29·04, which makes it a little below the level of the sea. This Khan, on the supposed site of the inn where the good Samaritan left the man who had fallen among thieves, had been rebuilt since my visit in 1882. A large quadrangular enclosure has been provided for the accommodation of beasts, while a substantial row of arched chambers and an open court take the place of the ruined building of former days.

The change of flora after passing the Khan is striking and almost complete. Only a few ubiquists remain to remind one of the vegetation of the hill country and plain, which is replaced by such plants as Zygophyllum album, Haplophyllum longifolium, Allium Hierochuntinum, Gypsophila Rokejeka, Matthiola oxyceras, Diplotaxis Harra, Centauria eryngioides, Pteranthus echinatus, Gymnocarpum fruticosum, and Galium Judaicum. On arriving at the plain, Zizyphus Spina-Christi, Balanites Ægyptiaca, Solanum coagulans, Boerhavia plumbaginea, and Loranthus Acaciæ become the characteristic plants.

We arrived at the New Bridge at 7 p.m. Barometer: B., 31·6; W., 31·5; mean, 31·55. Our tents were pitched, and the appetising savour of our dinner was puffing out from beneath the lids of our tinned-copper cooking vessels. The flimsy trestle-work bridge, built of the wood of the Jordan valley, may last for a few years, but looks as if the slightest freshet would sweep it down the stream. Two red-legged storks were perched on the top of one of the marl hills, a little to the left of our road as we came into camp, but too far away for a shot, and it was too late to stalk them.

The birds of the day were Passer domesticus, Corvus monedula, Turtur auritus, T. sp. Sylvia sp., Saxicola leucomela, Alauda cristata, Pterocles Senegalus, Accipiter nisus, Lanius collurio, Falco tinnunculus, Neophron percnopterus, Gyps fulvus, Columba livia, Caccabis chukar. We also bagged a few lizards, which have not as yet been studied.

Saturday, April 24.—Barometer, a.m.: B., 31·55; W., 31·58; mean,

31·565. While the horses were being saddled, and the camp struck, I occupied the time in botanizing in the jungle along the river. Zollikofferia mucronata, Bromus brachystachys (fine specimens over a yard high), Tamarix Jordanis, Glycyrrhiza glabra, Nitraria tridentata, Lolium rigidum, Asparagus Lownei (specimens with spurred leaves [in the original description by Baker, founded upon the specimens in Kew Herbarium, which I have since seen, there are no spurs]), Lolium rigidum (annual specimens, but in full fruit), Populus Euphratica (now past fruiting—I obtained fine fruiting specimens the next day in Wady Nimrîn).

After some bickering between the bridge-tender and our muleteers we crossed into the plain of Shittim. The caravan turned south-eastward toward Tell el-Hammâm, while we rode a little north of east toward Nimrîn. A few hundred feet from the bridge, Dr. Kay shot a bushy-tailed rat, which has not as yet been studied.

The characteristic plants met with in crossing the plain were Statice Thouini, S. spicata, Balanites Ægyptiaca (Zakkûm), Calotropis procera ('Ushr), Solanum coagulans (Fikkîs), Zizyphus Spina-Christi (Sidr or Nebk), the berries of which are edible, Mesembryanthemum nodiflorum, Atractylis cancellata, Tunica Arabica, Matthiola oxyceras.

We lunched at the waters of Nimrîn, and took a rest under the shade of a Nebk tree from the almost tropical heat. We then skirted the Moabite hills, and to our disappointment at the time, reached our camp at Tell-el-Hammâm, at the early hour of 3 p.m. Tell-el-Hammâm is twenty minutes distant from Tell Kefrein, in the valley of the Umm-Hadhar (pronounced by the Arabs M'Hadhar). Our tents were pitched on a hillock just above a morass formed by the water of the Umm-Hadhar, a most insalubrious site, which had been chosen by the obstinacy of our guide, Sheikh 'Ali, who always showed himself less accommodating than his brother, Felah. It had been our intention to encamp at Tell-er-Ramé, an hour further on. As the tents were already pitched, we concluded to make the best of the situation, especially as the swamp gave good promise of game and plants.

The birds of the day had been Lanius lahtora, Coracias garrula, Coturnix communis, Buteo vulgaris, Accipiter nisus, Sylvia atricapilla, S.Rüpellii, Crateropus Acaciæ, Carduelis elegans, Alauda cristata, Ammoperdix Heyi.

We plunged into the swamp, and secured Alcedo Smyrnensis, Oriolus galbula, Lanius Nubicus, L. lahtora, Buteo vulgaris, Turtur auritus. A herd of six wild swine ran down from the opposite bank into the swamp. Presently the Arabs shot a sow, which furnished us at once with a valuable skin, and a good supply of pork.

The swamp also gave us Asparagus stipularis, both the type and the var. brachyclados, Saccharum Ægyptiacum, Populus Euphratica, Salix sp. (near alba), and at its border we found Periploca aphylla, not heretofore found in the Ghor, and fine specimens of Retama Rœtam in fruit, also Trigonella Arabica and Daucus Jordanicus, Post (a new species).

The warm spring from which Tell-el-Hammâm takes its name, is on

the hillock opposite that on which our camp was pitched, in a south-easterly direction. It is a spring of foul, ill-smelling water, with a temperature of 100° F.; gas, which we had no means of testing, rose in bubbles from the muddy bottom. Around the pools were numerous plants of Phelipea lutea, and overshadowing them a thicket of Salvadora Persica, but differing from the type in its long linear-oblong leaves, many of them four or five inches long. Dr. Merrill argues that these were the springs visited by Herod, rather than the almost inaccessible, though more potent, springs of Callirrhoë.

In addition to the insanitary condition of our camp, we were subjected to another annoyance of a botanical character. The whole hill on which we were encamped was covered with a luxuriant crop of Stipa tortilis, then in full ripe fruit. The seed of this plant is about a third of an inch in length, and furnished with a needle-like point and retrorse hairs. The long awn is covered with barbed hairs, and sticks fast in the meshes of any fabric with which it comes in contact. Our clothes, bedding, tents carpets, and wrappings became filled with these needle-like seeds, which tormented us with incessant pricks and scratches. A large part of our time was spent in the vain endeavour to get rid of this pest. Not until several days after we left this camp, and only by dint of incessant picking over of our clothes, tents, and bedding, did we finally clear them all out.

Barometer at 9 p.m.: B., 30·66; W., 30·7; mean, 30·68.

Sunday, April 25.—We spent a quiet day in camp. Barometer, 7 a.m. B., 30·8; W., 30·75; mean, 30·775. In a walk which we took in the afternoon we observed, on the hill behind our camp, abundance of Lygai pubescens, new for this region. The thermometer at noon stood 92° F. in the shade of our tent, but in the afternoon the heat was moderated by a cool breeze. We saw numbers of wild pigs and many birds during the day. They feed at this season on the barley, and take for dessert the berries of the Nebk. 7.30 p.m., Barometer, B., 30·63; W., 30·65; mean, 30·64.

Monday, April 26.—We were up betimes, refreshed by the needed rest of the Sabbath. Travellers and explorers lose no time by keeping the day of rest. Six a.m., Barometer, B., 30·72; W., 30·68; mean, 30·70. More wild pigs.

While the caravan was being loaded I took the accompanying sketch of the range of Jebel Neba.

The whole range bears the name of Jebel Neba. Jebel Sîâghah is its western spur. Of these peaks more anon.

Before starting I noted Notobasis Syriaca, Allium Hierochuntinum.

We started at 6.30 a.m. for Tell-er-Ramé, leaving the train to take the direct road to Ma'în. An hour of shooting and botanizing among the Sidr trees brought us to Tell-er-Ramé. The hill is one of the landmarks of the Ghor, and has on its summit two whitewashed tombs, and many graves. Excavations would probably reveal ancient ruins, as is almost always the case with these isolated truncated tells in the East. Near it

base is a series of pits for storing grain. They are from four to six feet across, and six or eight feet deep. Bits of broken pottery project from the walls of these pits quite to their bottom. It would seem that for a

General View of the Nebo Range.

Jebel Sîâghah. Jebel Neba. Jebel El-Maslubîyah.

The Shittim Plain.

considerable depth the soil is full of sherds, the accumulation of many centuries of *débris* in the neighbourhood of human habitations. Our guides assured us that the grain stored in these pits is quite safe from rats and moisture. The Arabs cover the floor of the pit with cut straw (tibn), fill it to the level of the ground with grain, cover the grain with more straw, and then heap a mound of earth over all to a height of some feet above the surface of the soil. The wheat of all the trans-Jordanic region is stored in this way.

The road from the Ghor to 'Ayûn Mûsa is steep and stony. At the foot of Tell-er-Ramé I found Convolvulus pilosellæfolias, Desr., a straggler from the distant plains of Mesopotamia, also Polypogon maritimum and Beta vulgaris, var. maritima, all new for this inland maritime plain. Gradually as we ascended, the flora changed. At first we met with the plants of the wilderness of Judea—Haplophyllum longifolium, Allium Hierochuntinum, Centaurea eryngioides, Ricinus communis; presently, Pimpinella eriocarpa (with fruit resembling that of Psammogeton). Soon we began to discover the characteristic plants

of the western slopes of the Palestine range — Chrysanthemum segetum, C. coronarium, Senecio vernalis, Scolymus Hispanicus, Emex spinosus, Aphodelus fistulosus, A. microcarpa, Urginea maritima, Linaria Chalepensis, Chenopodium murale, Beta vulgaris, Salvia Horminum, Rhamnus Palæstina, Atraphaxis spinosa, Erodium cicutarium, Geranium rotundifolium and G. molle, Cichorium Intybus, Hordeum murinum, H. bulbosum, Piptatherum miliaceum, Pistacia Terebinthus, var. Palæstina, Saccharum Ægyptiacum, Arundo Donax, Capparis spinosa, Calendula Ægyptiaca, Filago prostrata, Polygonum aviculare, Juncus maritimus, Scabiosa prolifera, S. argentea, Bromus scoparius, Nerium Oleander, Gundelia Tournefortii, Ononis antiquorum, O. Natrix, Carrichtera Vellæ, Rhagadiolus stellatus, Ballota saxatilis, Teucrium Polium, Dianthus multipunctatus, Convolvulus althæoides, Ephedra campylopoda, Muscari comosum, Diplotaxis Harra, Brassica Tournefortii, Dactylis glomerata, Erodium gruinum, Falcaria Rivini, Anchusa strigosa, Linum pubescens, Fumaria micrantha, Hymenocarpus circinnatus, Avena sterilis, Ajuga tridactylites, Helianthemum salicifolium, Scrophularia xanthoglossa, Pallenis spinosa, Asteriscus aquaticus, Sonchus oleraceus, Umbilicus horizontalis, Veronica Anagallis, Hyoscyamus aureus, Iris Sisyrhinchium, Lamium moschatum, Carduus argentatus, Galium tricorne, Parietaria officinalis, Caucalis leptophylla, C. tenella, Poterium spinosum, Adonis autumnalis, Ornithogalum Narbonense, Trifolium tomentosum, T. stellatum, Silene racemosa, S. Atocion, Chætosciadium trichospermum, Lagæcia cuminoides, Ranunculus Asiaticus, R. myriophyllus, Sedum Palæstinum, Linum striatum, Biscutella Columnæ, Valerianella vesicaria, Fumaria parviflora, Lathyrus Aphaca, Geranium lucidum, G. tuberosum, Lythrum Græfferi. These, with many others, will serve to give a picture of the floral panorama which unrolled before us as we ascended to 'Ayûn Mûsa.

At 'Ayûn Mûsa we found wild figs almost ripe. In fact some of them were already mellow enough to be eaten.

This fact may shed light on the incident of the barren fig tree, as it was hardly too late for a late Passover season.

We arrived at the fountain at 11.30 a.m. Barometer at the level of the cave, B., 28·5 ; at upper cave, B., 28·45 ; W., 28·4 ; mean, 28·425.

Hanging from the roof of the cavern are splendid fronds of Adiantum Capillus-Veneris, and on its floor fine specimens of Scrophularia macrophylla, and below the cavern S. Michoniana.

We lunched at the southernmost of the fountains, and then started for the summit of Jebel Sîâghah, which stood up boldly above us. As we are making the ascent let us review the question of Moses' point of view, for the last time, of the promised land which he was not to enter.

We will assume as a fixed point of departure, what perhaps is nevertheless uncertain, that Jebel Neba is Mount Nebo. Sheikh Felah, our guide, who has taken most of the travellers through Moab in recent years, says that the whole mountain mass which looms up above Wady 'Ayûn

Mûsa is known by the name of Jebel Neba, as that to the south of it is known by that of Jebel el-Maslubîyah. Khurbet Sîâghah is the name of the ruin which crowns the prominent shoulder of this mass which looms above 'Ayûn Mûsa, and overlooks the Shittim plain, but does not include the highest rounded summit of Nebo. Moses was in the Shittim plain when commanded to ascend Nebo, to רֹאשׁ הַפִּסְגָּה the top of the hill, or the top of Pisgah, making the latter a noun proper—the hill, *κατ' ἐξοχην*. If we suppose, as is altogether probable, that he started from the neighbourhood of Tell-er-Ramé, his road would lie as ours did by 'Ayûn Musa, and up the flanks of Jebel Sîâghah, to its top, and thence to the summit of Nebo (the top of the hill) where he met his fate. It is impossible to conceive that he did not continue to pause and cast back his eyes from time to time during the ascent. He would instinctively turn westward at each winding of the road, and look back over the Shittim plain where the great host was encamped; at the green poplars and willows of the Jordan banks, with the silvery water flashing in places through their dense foliage, then across to the glaring desolate rocks of the Judæan wilderness; as he rose higher and higher he would discover the green hills of Palestine. When he reached the bold headland of Sîâghah he would linger to take in the wonderful foreground in which the whole host would now be visible filling the plain, the northern third of the Dead Sea, the Jordan Valley, to the cleft at the bottom of which he knew lay the Sea of Tiberias (albeit invisible from this point of view), and the whole profile of Palestine. Neither from this point, nor from the top of Nebo, which is about 350 feet higher, could he literally see the Mediterranean. The including of the great sea in the prospect must be taken in the same sense as the seeing of all the land. No mountain in Moab is high enough to enable one to see the Mediterranean over the hills of Palestine, nor to see anything but the eastern declivity of those hills and their profile against the western sky.

From Sîâghah Moses would naturally go on to the *top of the hill*, about a mile away, and 350 feet higher. Here his range of vision, although losing the immediate foreground of the Ghor, and the host of Israel encamped there, would take in a more comprehensive profile of the promised land across the Jordan, and in addition the surrounding hills of Moab. Here, if Neba be Nebo, should be placed the site of his last glimpse of the land of Canaan, and of the world in which he had sinned.

The criticism which derives Pisgah from Sîâghah does not find any support in the genius of the Semitic languages. All Hebrew and Arabic words contain three, or at most four, radicals. Those of Pisgah are פסג. Those of Sîâghah are ص = س ي = غ ي = ع. To derive סיע from פסג follows no known principle of derivation, and cannot be maintained.

Furthermore, there is a fatal scriptural objection to making the *top of*

the hill רֹאשׁ הַפִּסְגָּה Sîâghah. Balaam (Num. xxiii, 14) ascended to this point, *i.e.*, the *top of the hill* רֹאשׁ הַפִּסְגָּה, and from it he saw only the outskirts of the Israelitish camp. Furthermore, it was the express object of taking him there, to prevent him from seeing the whole camp. Had his point of view been Sîâghah he would have seen the whole host and not its borders only, whereas from the top of Nebo he would see only the outlying detachments, while Sîâghah would hide the main body from his view. We may suppose that it was likewise the object of Jehovah in taking Moses to the top of Nebo, to spare him at the last moment the pain of seeing the host of his brethren, and so mitigate the sorrow of parting.

The attempt to derive Zoar from Sîâghah falls to the ground, from philological as well as scriptural reasons. The radicals of Zoar are צוער, while those of Sîâghah are ص ي غ = סיע. Moreover, Sîâghah is much too far off from any assignable site of Sodom to suit the narrative.

Our consideration of the walk of Moses would be incomplete, did we forget that he was quite familiar with every coign of vantage for obtaining the best view of Palestine. It must be remembered that Moses made the top of Nebo the first objective in his march into the northern Moab. The host of Israel rolled up the slope of the table-land to the crest of the highlands, and looked over into the promised land. He then addressed himself to the conquest of the country of Heshbon and Elealeh, and then pressed forward into Gilead and Haurân. Weeks, or perhaps months, were occupied in the subjugation of these extensive districts, and much time afterward in rebuilding the cities and putting everything in a posture to favour to the utmost the passage of Reuben, Gad, and the half tribe of Manasseh, across the Jordan with their brethren. During this period Moses and the leaders of the host, doubtless ascended every prominent peak from Nebo to Jebel Kuleib (spelt in the Arabic with ق not with ك), and saw in detail, over and over again, all the panorama of Palestine, and he likewise saw, from the mountains of Bashan, Lebanon and anti-Lebanon, and the Damascus plain, all of which belonged to them by inheritance, clear to the entering in of Hamath northward of Lebanon and anti-Lebanon, and had been searched out as lawful territory by the spies. In going up Nebo from the valley of the Jordan, Moses was to take a *last*, not a *first*, look, and that over scenes now become familiar to him and his people.

Our conversation has lasted longer than the ride from 'Ayûn Mûsa to Sîâghah, and we are on the first of the two shoulders of which the headland is composed. We arrived at 1.20 p.m.; barometer: B., 27·68; W., 27·65; mean, 27·665.

There are somewhat extensive ruins on this shoulder. Among them we found Ferula communis, and Crambe Hispanica.

The view from this point is indeed comprehensive and impressive. It includes the hill country of Judea, the Mount of Olives directly opposite (now crowned with a minaret), the land of Ephraim, Ebal, and Gerizim, and the hill country of Galilee. In the foreground is 'Ayûn Mûsa, the valley of the Jordan, and a considerable part of the Dead Sea. The heights of Nebo cut off all the view to the east. The ruins consist of a deep vaulted chamber, surrounded by rubble walls now fallen and shapeless; also a well with a curb stone. It may well have been one of the many high places of Baal, found all over the country. (*Cf.* Num. xxii, 41.)

We crossed over to the other shoulder of the headland, on which Lieutenant Steever had erected a stone heap as a memorial of his visit. Barometer: B., 27·66; W., 27·63; mean, 27·645. It lies south-west of the other. We found there fine specimens of Allium Erdelii, and Paronychia argentea. The view is substantially the same as that from the northern peak, but a little more extensive.

The two shoulders of Sîâghah suit well the narrative of Balaam. From the northern summit of Sîâghah, which is, perhaps, the high place of Baal mentioned at Num. xxii, 41, he would obtain a comprehensive view of the Israelites encamped in the plain. From the southern summit he would gain a still more comprehensive one. Both summits have ruins, which may be those of high places of Baal. Just below the top of Nebo, above Sîâghah, is an undulating *wheat field*. This may be the *field of Zophîm on the top of the hill*, ראש הפסגה, and from the top of the hill he would see the outer part of the Israelites' camp and no more (*cf.* Num. xxi, 20, where Pisgah is again mentioned). The heights of Sîâghah effectually hide the foreground of the plain as appears from the accompanying sketch.

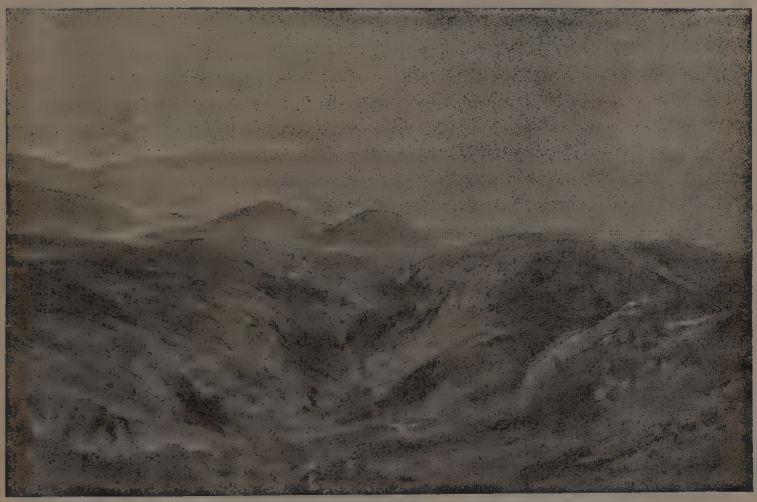
After spending an hour on the peaks of Sîâghah, we rode up to the *top of the hill*, crossing what may have been the field of Zophîm, and reaching the summit at 3 p.m. Barometer: B., 27·26; W., 27·28; mean, 27·27. The view from this point takes in less of the north and south of Palestine than that from Sîâghah, also less of the Dead Sea, and none of the Shittim plain, but includes all the great features of Palestine even better than that from Sîâghah, and also the adjacent regions of Moab. It was by moving from point to point that Moses would take in every possible impression of the landscape, never more to be seen by him.

As soon as we had passed over the summit of Nebo we were in the rolling table-land of Moab. On that side there is no mountain. Scenery, fauna, and flora suddenly changed. The ridge, which is from the side of the ghor the summit of a mountain range, is from that of Moab the brow of the table-land, only slightly elevated above the general level. Nebo, from that direction, is only one of the many waves of that rolling prairie which stretches away to the Euphrates and Tigris, and beyond them to Beloochistan.

The table-land of Moab is destitute of trees, and, with the exception of Mâdeba (Medeba), which is a Christian village, and 'Ammân (Rabbath Ammon), which is a Circassian colony, has no human habitations, except

the black goats' hair tents of the Arabs. As it is for the most part devoted to grazing, the effect of the landscape is dreary and monotonous. We found Iris Sari, Astragalus callichrous, A. Alexandrinus, both the type and var. elongatus, Barbey, Rhaponticum pusillum.

SKETCH OF A PORTION OF MOSES' LAST VIEW FROM NEBO.



N.B.—The two prominent peaks in the centre are those of Jebel Sîâghah. The white to the left of them is the head of the Dead Sea. The plain to the right is that of Jericho. The mountain range along the horizon is that of Judea and Southern Samaria. The most prominent peak, just over the left summit of Sîâghah, is the Mount of Olives. The plains of Moab are hidden by the shoulders of Sîâghah.

The birds of the day were Lanius lahtora, L. Nubicus, L. auriculatus, Passer domesticus, Sylvia atricapilla, Accipiter nisus, Columba livia, Alauda cristata, Saxicola œnanthe, Melanocorypha calandra, Oriolus galbula, Buteo vulgaris, Coturnix communis, Ciconia alba, Alcedo Smyrnensis.

At 5 p.m. we arrived at Ma'în, the ancient Baal-Meon, and encamped at a little distance from the eastern foot of the tell, by the ancient cisterns, one of which still holds water. Barometer, 6.30 p.m. : B., 27·14 ; W., 27·06 ; mean, 27·1. Nothing about the present ruins indicates high antiquity. There are, however, numerous cisterns cut in the rock, beneath the surface.

Sheikh Felah, our guide, is a man of about 50 years of age, of medium stature, with a mild countenance and gentle speech. He is the

most decided gentleman whom we met among the Arabs. He has a small box full of well-earned testimonials from the distinguished travellers whom he has conducted through Moab. As soon as we arrived at Ma'în, he rode off to arrange for our visit the next day to the hot springs at Callirrhoë. This lies within the territories of the Hamîdeh Arabs, and the 'Adwân dare not conduct a stranger into their lands.

Tuesday, April 27th, 6 a.m.—Barometer: B., 27·16; W., 27·05; mean, 27·105. Taking an early start, we soon began our descent toward the deep chasm of the Zerka Ma'în. The first part of our way lay over the rocky rolling ground of the plateau. Within an hour we passed an encampment of the Hamîdeh. It consisted of a single row of tents with the openings toward the east. The usual array of dirty children, barking dogs, and slatternly women presented themselves. They offered us milk to drink, but as we had just taken our coffee we declined.

The flora was, for the first part of the way, the same that we had encountered in coming up the mountain the previous day, but reversed in order. On arriving at the level of the sea, we began to meet the peculiar plants of the Ghor and the deserts: Erodium hirtum, Linaria Hælava, Centaurea, sp., growing on the hot rocks near the road. As we went further down we collected Alcea rufescens, Chardinia xeranthemoides. At the top of the last hill before arriving at the amphitheatre of Callirrhoë, we met fine specimens of Cleomia trinervia, then Blepharis edulis (not before noted here), Reaumuria Palæstina, Withania somnifera (a variety with long peduncles), then Ochradenus baccatus, Helianthemum Lipppii, var. micranthum, Frankenia pulverulenta, Moringa aptera, with panicles of fragrant flowers, Acacia tortilis, Phœnix dactylifera, Tamarix mannifera, Dæmia cordata, with its curious twining stems, Fagonia glutinosa, Pentatropis spiralis, Forsk., growing by the side of the hot water with its sulphury-yellow flowers,[1] Trichodesma Africanum, Aizoon Canariense, Iphionia juniperifolia, Tetrapogon villosum, Atriplex leucocladum.

The barometers at the main spring at Callirrhoë were: B., 30·20; W., 30·28; mean, 30·24. The principal springs were partly covered with poles and branches of trees, over which the Arabs lie and spread over themselves their thick lambskin cloaks, that they may swelter in the steam bath. The temperature of the principal spring was 138° F. There were several Arabs at the spring at the time of our visit, who had come for the sake of the steam baths. One of them was a young man with Hodgkin's disease (swelling of the lymphatic glands of the neck), and others were afflicted with various diseases, principally rheumatic. They had killed a lamb just before our arrival, and were seething the flesh in sour milk (lebben). The head and intestines were immersed in the hot spring to be parboiled before being cooked in the pot.

[1] This plant would seem to be the *Crucifer* alluded to by Tristram in his "Land of Moab," as no other plant with sulphur-coloured flowers grows by the water. It is, however, an *Asclepiad*, not a *Crucifer*.

I enquired of the Arabs what they knew about these springs. One of them informed me that "Our Lord Solomon" had brought these springs out of the rock. I asked him how Solomon got here over the frightful descent over which we had just come. He informed me that there were good roads through the country in those days. How an invalid like Herod could have reached them is a mystery. There is no trace of any road better than the present one, and down it an invalid could only be brought in a palanquin.

We remained for a couple of hours in the stifling atmosphere, and then set out on our return. As we started the Arabs at the spring attempted to extort black mail. We left the Sheikh to do the talking, simply assuring them that we would pay them nothing. Orientals are best dealt with through a mediator.

Our ride down had taken four hours. The return occupied five and a half, although we stopped but little to collect on our way back. We had expected to return up the wâdy, but found that it was quite impossible to go up its bed. As a detour along the brow of the cliffs which overhang it would have been very long and fatiguing, and we had no provisions for a bivouac overnight by the way, we returned over the same road by which we had come. The climb out of the gorge was excessively fatiguing, and not until we reached the breezy plateau did we regain the elasticity which the stifling air of the valley had quite taken away. On our arrival in camp we found that one of our Arabs was going to Jerusalem early in the morning, and, tired as we were, we were glad to avail ourselves of the chance to write to our friends at home.

The birds of the day were Ciconia alba, Coturnix communis, Caccabis chukar, Merops apiaster, Passer domesticus, Alauda cristata, Calandrella brachydactyla, Saxicola œnanthe, Lanius Nubicus, L. collurio, Corvus frugilegus, Milvus, sp. Coracias garrula, Ammoperdix Heyi. Two leopards were reported by the Arabs as seen the previous day on the way to the springs.

Barometer, 8 p.m. : B. 27·15 ; W. 27·05 ; mean, 27·10.

Wednesday, *April* 28.—Barometer, 7 a.m. at camp : B. 27·16 ; W. 27·13 ; mean, 27·145. We went up to the top of the ruins, and found the barometer there B. 27·1 ; W. 7·03 ; mean, 27·065.

The ruins are a confused mass, consisting almost wholly of the remains of the mediæval town, with few, if any, marks of antiquity. A few of the vaulted chambers seem to be used at times as residences, or as stables for cattle.

Before leaving I botanized around the camp, but found nothing of special interest. Our train took the direct route to 'Ain Hesbân, while we struck across the plain in a direction east of north toward Madeba (Medeba). We soon encountered large tufts of Stipa Lagascæ, the awns of which are sometimes ten or eleven inches in length. We also met with large tufts of Phalaris Canariensis, also Glaucium Aleppicum, with large orange-coloured blossoms, Iris Sari, Astragalus Alexandrinus, var. elongatus, Barbey.

From a distance Medeba presents a somewhat striking appearance, but the illusion is dissipated on entering the town. Yet among blind men a one-eyed man is king. Medeba is the only inhabited village on the Moab plateau, and, although the houses are of rough stone put together without mortar, and unplastered or simply daubed with mud, yet, by contrast with the goats'-hair tents of the Arabs, they are pleasing to all but Bedawîn, whom nothing can induce to live within walls. The town contains about a thousand souls, all nominal Christians of the Greek and Latin rite. The complexions of the people are many shades lighter than those of the Bedawîn, and some of the young girls are quite fair and tolerably pretty. We visited the Latin Church, a dismal enough sanctuary as compared with those of civilised countries, and yet an elevating and educating force in such a desolate land as Moab. One can understand better in such circumstances the tolerance in the Divine plan of error and partial truth, when they are antagonised with more radical error or total ignorance like that of the modern Moabite Arabs. We could not but remark what Christianity, even in its imperfect form, had done for Medeba.

The reservoirs of Medeba are on a grand scale, and well preserved. That on the south side is 110 metres in circumference, and could easily be repaired for use again. Those to the east and north are smaller, but also well preserved.

After a few purchases of chickens, eggs, and bread, we turned our faces northward toward Hesbân (Heshbon), which loomed up on a high swell of the table-land. About an hour from Medeba we came to a group of cisterns under the ground, and some subterranean vaulted chambers, one of which was quite extensive and elaborate. These ruins are known as El-Kufeir-esh-Shurki. I am not aware of any biblical or classical site to which they can be referred. The vaults appear to be mediæval. We took our lunch under one of these vaults by the side of the underground chamber above alluded to. Our supply of water being exhausted, we drew a little from one of the cisterns which still holds water, but it was so muddy that we only used it to wash our hands after our lunch. On the waste soil above the vaults we found Astragalus cruciatus.

From El-Kufeir-esh-Shurki we reached Hesbân in an hour. From the ruins of this fortress a fine view is obtained of the whole plateau of Moab and the mountain range which culminates in Jebel Husha' (Osha'). The present ruins are not of high antiquity, and it is a difficult task for the imagination to restore to the reservoir to the east of the castle the beauty which made the fishpool of Heshbon a suitable simile for the eyes of Solomon's bride.

From Heshbon we crossed the plane to El-'Al (Elealeh), a shapeless mass of ruins, at the top of which is another of the stone heaps raised by Lieutenant Steever when establishing his base line for the triangulation of Moab. We have already noted one at the top of the southern shoulder of Jebel Sîâghah. Dr. Kay started a fox on the top of El-'Al, but he proved too foxy for us, and escaped among the ruins. From El-'Al we

dropped down to our camp at 'Ain Hesbân, below the crest of the plateau. As soon as we crossed the brow of the table-land we again encountered the familiar flora and rocks of the maritime slopes of the Palestine range and of Lebanon.

We found our tents pitched in a meadow by the stream which flows from 'Ain Hesbân, not at the fountain itself. The water, however, was cool and clear, and very abundant. It was delightful to hear the murmuring of a brook in such a dry and thirsty land. The plants of the day were, in addition to those noted, Astragalus hamosus, Geranium tuberosum, Veronica Syriaca, V. Cymbalaria, Coronilla scorpioides, Medicago scutellata, Adonis Palæstina, Allium Neapolitanum, Lagurus ovatus, Trifolium scutatum, T. clypeatum, Mercurialis annuus, Scandix Pecten-Veneris, Salvia Verbenaca, Silene inflata, Nasturtium officinale, Anthemis altissima.

The birds of the day were Ciconia alba, Coturnix communis, Caccabis chukar, Passer domesticus, Alauda cristata, Calandrella brachydactyla, Melanocorypha calandra, Columba livia, Yunx torquilla, Emberiza miliaria, Saxicola sp., Milvus sp., Accipiter nisus, Corvus frugilegus, Passer Moabiticus.

Barometer at our camp at 7.30 p.m. : B., 27·56 W., 27·58 ; mean, 27·57.

Thursday, April 29, 6 p.m.—Barometer : B., 27·51 ; W., 27·48 ; mean, 27·495.

During the evening and night the clouds had rolled up heavily, and a few drops of rain fell. The barometer likewise fell during the night. On arriving in camp the night before we had found Sheikh 'Ali, the brother of Sheikh Felah, who gave us rather a sulky greeting. We were not sorry to learn that he was not to accompany us the next day. He is every way inferior as a guide to his polite and good-natured brother, Felah.

The morning was still threatening, so we rolled up our plant presses in the tent carpets to protect the specimens in case of a shower. We sent on our train by the direct road to 'Ammân, while we went around by 'Arak-el-Emîr. We turned northward, and passed over a spur of the mountain to Wâdy Na'ûr. Our road lay for an hour through a beautiful park-like country, sparingly wooded with Quercus coccifera and Q. Ægilops, and the ground everywhere beset with Poterium spinosum. We also saw Styrax officinale, and a pure white-flowered form of Anchusa strigosa. A lark started up from under the horses' feet, flew a few paces, and alighted in the grass. I dismounted, and almost succeeded in catching it. But suddenly it rose, flew a little distance to lead me on. Dr. Kay then tried a distant shot, but did not hit it, and then the bird flew away out of our sight. Doubtless this was a ruse to protect its young.

At half-past 11 we arrived at Kasr-el-'Abd, the ruin by 'Arak-el-Emîr. Barometer : B., 28·23 ; W., 28·27 ; mean, 28·25. The air was exceedingly stifling and oppressive. Among the ruins we collected Trichodesma Boissieri, Post, a new species with softer indument than T. molle, Cerinthe major, Pisum

elatius. Overpowered by the glare and heat, we were glad to leave these ruins, where the mid-day sun cast no shadow, and made our way toward Wâdy-es-Sîr. We rode up to the caverns of 'Arak-el-Emîr, or Stabl 'Antar, which are now used as cattle-pens, and the talus of manure accumulated at their base overgrown with rank specimens of Notobasis Syriaca, taller than a man on horseback. The cliffs above the caverns are full of turtle doves. Daûd bagged three at one shot. As we passed into the beautiful Wâdy-es-Sîr, Dr. Kay stalked and shot a jay, and presently afterward a hawk. The valley is park-like, with here and there groves of trees, Quercus coccifera, Pyrus Syriaca, Amygdalus communis, Pistacia Terebinthus, intermingled with open glades and cultivated fields. After half an hour's ride up the valley we sat down to lunch under an evergreen oak, Qu. coccifera, by the side of a small mill-sluice, and ate our lunch. All around were fine specimens of Scilla hyacinthoides, with long, spike-like racemes of blue flowers. After shooting a few birds, we rode on up the beautiful valley of Es-Sîr (Tyrus). The upper part of the valley is well wooded on both slopes, mostly with Quercus coccifera. Half-way from 'Arak-el-Emîr, to the head of the valley, high above its left flank in the face of the cliff, is a rock-hewn dove-cote, of which the accompanying sketch will serve to give an idea. The length and breadth of the façade are each about 19 feet. At the bottom is a doorway, which is supplied with a rough wooden door. Some of the windows are entirely open, and others have the original rock pierced with pigeon holes, as indicated in the drawing. The cote is three storeys high, originally with rock floors, which are now for the most part broken away, and in part replaced with rough wooden beams overlaid by brush. A rock-column of an oblong shape, 13 feet 4 inches long and 3 feet 5 inches wide, occupies the centre of the building, as indicated in the accompanying sketch of the ground plan of the second storey. In each storey were six tiers of nests chiselled out of the walls and central column, affording in all accommodation for many hundreds of birds. Being alone, and half an hour behind the party, I had not time to count the number of these nests. At the time of my visit there were no pigeons there, and as there were no persons near from whom to make inquiries, I could not ascertain whether it still served its ancient purpose or no. From the door at the lower entrance, and the existence of a sort of pen in front and traces of manure about, I suppose that the ground floor is now used as a fold for sheep, and the upper for sleeping places for the shepherds. Who excavated it, and when, I have no means of surmising. There was no inscription on the façade or on the rocks near by. This dove-cote had been noted before by Lieutenant Conder, in an unpublished manuscript, of which I have heard, but have not seen, but has not yet been figured in any publication so far as I know.

On the sloping hillside, beneath the dove-cote, in the rich soil, was a large number of Trachelanthus (Cerinthopsis) pereana of Paine, which seems to me not to differ specifically from the specimens of T. Kurdica in Boissier's herbarium. The single very imperfect specimen of the

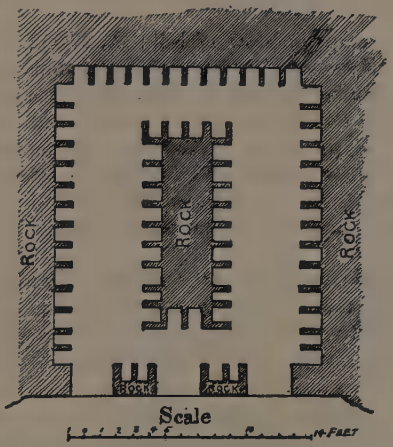
latter plant in Kew herbarium differs somewhat from Paine's plant, but is too fragmentary to exhibit the specific characteristics. A little further up the valley I collected, on a shady bank, fine specimens of Ajuga

FACADE OF ROCK-HEWN DOVE-COTE IN WÂDY-ES-SÎR.

The lower cut represents the ground plan of the second storey of the same, showing the arrangement of the niches for nests. The central column is of the original rock, left as the pillars in mines to support the roof, and utilised to increase the capacity of the cote.

The upper floor is similar to the middle. The lower is also similar but has no windows.

The wooden door is quite modern.



Orientalis, with large rounded bracts. Further on, large specimens of Cyperus longus, and more Trachelanthus Kurdica.

Near the head of Wady-es-Sîr is a new village of Circassian refugees, laid out with regular streets, neat little cottages, and an air of thrift quite anomalous in this land.

From the romantic scenery of Wady-es-Sîr to the bleak plain of Moab, at its head, is a sudden and not agreeable transition. The dreary rolling upland, with no trees, and no relief to the eye but the numerous black goats'-hair tents, wears a featureless aspect, which was the more tiresome to us, as we were no longer rewarded with new and interesting plants, and in fact added nothing to our presses or our game bag. We were very glad when, at about 5 p.m., we arrived at 'Ammân. We found, however, to our disappointment, that our muleteers had pitched on a marshy plain by the great spring of the Zerka, which here bubbles out of the gravel, and flows in a broad sparkling stream through the town. As the camp at this place, beside its unhealthy situation, is half a mile from the ruins, and cut off from a view of them by a sharp turn in the valley, we made up our minds to move the tents to the brow of the hill south of the town, which commands a panoramic view of the ruins and the surrounding hills. While awaiting the re-establishment of our camp Dr. Kay shot a rock owl, which tried to escape by dropping into a cavity among the ruins. A Circassian boy crawled down into the crevice and fished him out with a hooked stick. It was 9 o'clock before we were settled in our camp, and our dinner was of the scantiest, but we were amply repaid for the drawbacks of our removal by the fine outlook over the town. The new Circassian village built among, and in part over, the ruins greatly mars their picturesque appearance, and as it has also been built at the expense of the materials furnished by the ancient buildings, it has largely contributed to their degradation. A generation or two of Circassian occupation will probably complete the destruction of Rabbath Ammon.

Barometer at camp on brow of hill: B., 27·05; W., 27; mean, 27. The birds of the day were Corvus monedula, Lanius auriculatus, L. Nubicus, Garrulus glandarius, Upupa Epops, Corvus cornix, C. frugilegus, Actites hypoleucas, Saxicola œnanthe, Turtur auritus, Columba livia, Alauda cristata, Gyps fulvus, Neophron percnopterus, Milvus, sp., Accipiter nisus, Merops apiaster, Ceryle rudis, Fringilla, sp.

Friday, *April* 30, Camp.—Barometer: B., 27·2; W., 27·15; mean, 27·175. At top of modern Circassian village: B., 27·33; W., 27·33; mean, 27·33.

The great abundance of fish in the stream only half a mile below the spring in which it takes its origin, suggests the idea of a subterranean spawning ground. In the morning, before we started, two boys brought between them three strings, with about a hundred fish, to sell. Unfortunately we had no arrangements to preserve them, and carried away no specimens. The source of supply must be a very abundant one to allow of such a catch at one time. In point of fact the whole stream is alive with them.

After an hour spent in examining the ruins in detail, we started

westward across the dreary plain toward Es-Salt. Salvia acetabulosa, Orchis tridentata, O. saccata, Fumana glutinosa, and a few of the roadside ubiquists, were all that we saw until we cleared the plain and began to cross the spurs at the edge of the table-land. In passing through a scrub recently cleared I found Orchis punctulata, var. sepulchralis, quite new for the Levant ; the sepals and petals of the specimens found were pallid and greenish-nerved. Beyond this scrub we came upon a wooded ridge, an hour and a half south of Es-Salt. Quercus coccifera was the principal tree. Here I found Limodorum abortivum, parasitic on the roots of Arbutus Andrachne and the oaks (new for this region); also Hesperis pendula, Piptatherum holciforme, Milium vernale, Arrenatherum elatius, Cephalanthera ensifolia, Smyrnium Olusatrum, Cistus villosus, Lonicera Etrusca, Ervum lenticula, Pinus Haleppensis, Papaver Argemone, Rubia tinctoria, Anagyris fœtida, Carum ferulæfolium, Astragalus cretaceus. As we left the woods and passed over the naked rocky spurs we again encountered the roadside ubiquists, which accompanied us fairly within the outskirts of Es-Salt, where our tents were pitched on a shelf of rock, thinly covered with earth, under the Latin cemetery.

The birds of the day were Passer domesticus, Sylvia atricapilla, Columba livia, Corvus cornix, C. frugilegus, Upupa Epops, Caccabis chukar, Melanocorypha calandra, Merops apiaster, Calandrilla brachydactyla, and Anthus campestris.

The savory welcome of the steam of our dinner saluted our nostrils as we passed the cook's tent. We had scarcely seated ourselved before our eyes were greeted with the welcome sight of Dr. Elias Saba, a medical graduate of the College at Beirût, who is acting as medical missionary of the Church Missionary Society at Es-Salt, where he is the associate of Pastor Jemel, the devoted incumbent of that parish. Dr. Saba, with true oriental hospitality, had brought us a lamb, a most welcome addition to our larder, which had been rather a scanty one since we had used up the last of our wild pork. He conducted us to the Turkish postal and telegraph station, where we sent a despatch to Beirût, which, however, was not delivered there until the afternoon of the following day, and the answer did not reach us until after forty-eight hours.

Es-Salt is built on both sides of a steep ravine, so that in many places the roof of one house serves as a platform in front of the one next above. Overlooking the town is a castle, now disused, and partly fallen into ruins.

Before dinner we dismissed our 'Adwân guides. A more courteous, obliging, and satisfactory guide than Sheikh Felah would be difficult to obtain.

Barometer at camp, 6 p.m. : B., 27·23 ; W., 27·2 ; mean, 27·215.

Saturday, *May* 1, 6 a.m.—Barometer : B., 27·27 ; W., 27·2 ; mean, 27·235. Taking an early start we went, in company with Dr. Saba, to botanize over the top of Jebel Husha' (the Arabic form of Hosea : it is not Ausha, as some have spelled it). The road winds up by an easy ascent. Andrachne telephioides, Cerinthe major, Rhus coriaria, Cyno-

crambe prostrata, Marrubium cuneatum, Convolvulus Scammonia, Alyssum campestre, Hypericum crispum, Anarrhirum orientale, and the ubiquists. Near the top we found Onobrychis aurantiaca (immature), Astragalus Christianus, Limodorum abortivum, parasitic on Arbutus Andrachne, Sisymbrium Columnæ, Valerianella truncata, Lolium sp. At a point near the top is the wely of Nebi Husha'. Barometer: B., 26·48; W., 26·43; mean, 26·455. It is a rectangular whitewashed building, 50 × 25 feet, constructed of rubble stone, with the inevitable dome. Within it is the tomb of the prophet, 31 feet long. The Moslem tradition makes all the prophets and saints exceedingly tall, and their height increases in a direct ratio with their antiquity. The tomb, as is usually the case, was draped with green cloth in a somewhat tattered condition, and sundry rags which had been hung there by the devout. To the east of the weli is a Moslem cemetery, overshadowed by a magnificent Quercus coccifera.

The top of Jebel Husha' is divided into three peaks, two of which lie along its western brow, overlooking the Ghor, and the other to the north-east. From the southermost of the western peaks (Barometer: B., 26·27; W., 26·23; mean, 26·245) is seen the finest panorama of the opposite table-land of Palestine obtainable, far finer than that from any part of Jebel Neba, including Siaghah. It takes in the heights above Hebron, the hill country of Judea, Benjamin, Ephraim, Galilee, and Hermon. From the north-eastern peak (Barometer: B., 26·22; W., 26·19; mean, 26·21) may be seen the whole circle of the Promised Land, including the trans-Jordanic region. I noted the Hauran range, Jebel 'Ajlûn, Hermon, the mountains of Galilee, Samaria (the cleft of Nablus is exactly opposite), Carmel, the hill country of Judea, Moab to Jebel Shihân, and the rolling country which forms the watershed between Moab and Gilead on the west, and the Syrian desert on the east. From this peak the Ghor and the eastern declivity of the Palestine table-land is hidden by the two western peaks. Were I seeking for a "Nebo," or "the top of a hill," over against Jericho, from the summit of which the most comprehensive as well as the most detailed view of the whole Promised Land might be obtained, I would choose Jebel Husha'. I am doubtful whether the name Neba may not be an accommodation of the Arabs to the wishes of travellers. Certainly nothing but the name entitles it to the preference over Jebel Husha' as the site of Moses' last view. The north-western peak is precisely the same height by barometer as the south-western, and gives the same view with a little of the Dead Sea cut off by the other peak, from which it may be seen to its extreme southern end.

The birds of the day were Lanius collurio, Upupa Epops, Carduelis elegans, Sylvia curruca, S. atricapilla, Anthus campestris, Coracias garrula, Saxicola sp., Garrulus glandarius, Corvus sp., Caccabis chukar.

6 p.m., Camp.—Barometer: B., 27·2; W., 27·16; mean, 27·18.

Sunday, May 2, Camp, 7 a.m.—Barometer: B., 27·25; W., 27·12; mean, 27·185.

Pastor Jemel has gathered about him a considerable congregation of

Protestants in that secluded town, and ministers to them in a most acceptable manner. At his request, after the morning service had been read, I preached to them in Arabic, and a more attentive and devout audience one could not wish to see. As we came out of church a telegram was handed to me; it was a reply to the one I sent to Beirût two days before. Telegrams from Es-Salt go by way of Nabulus, and if they arrive in the evening they cannot be sent until the next day.

After service a great crowd of sick and impotent folk collected in the dispensary, and we spent some hours in caring for their diseases and wounds—a practical exhibition of Christianity worth more than many sermons in the evangelisation of the world.

Pastor Jemel has given special attention to the question of the sites of Penuel and Succoth. He thinks that the former should be at El-Hârât, where there is an ancient ruin, and Succoth at El-Kheimât, which is the Arabic for *Booths* = *Succoth*. He does not regard either Es-Salt or Gerash as Ramoth-Gilead. He was not prepared to commit himself to any theory as to the site of the latter. He thinks, however, that El-Mastabah, between Es-Salt and Gerash, is Ramoth-Mizpah, which, in his opinion, cannot be Kal'at-er-Rabadh.

In the evening we took a walk up to the castle. Barometer: B., 26·85; W., 26·91; mean, 26·88.

Monday, May 3.—Camp at Es-Salt. Barometer, 7 a.m.: B., 27·23; W., 27·14; mean, 27·185.

We secured the services of a guide to take us as far as Irbid, at the edge of Haurân. His name was 'Ophnân, which signifies *putrid*. Orientals usually give names having some signification, oftentimes a very singular one. One boy in the Lebanon was called Jidri (*Small-pox*), on account of an epidemic of that disease which prevailed at the time of his birth. While we were waiting for the mules to be loaded a crowd of people gathered around us for medical treatment, and I amused myself and my patients by doing an eye operation for one of them.

Dr. Saba rode with us to the top of the pass over Jebel Husha', where we sat for a few minutes under a large Quercus coccifera, and then bade good-bye to civilised society before plunging into the land of Gilead.

Our road down Jebel Husha' lay through groves of the above-mentioned oak, Arbutus Andrachne, and Pinus Haleppensis. The open glades were now green with barley and wheat. Besides our ubiquist plants, we met with Fumana Arabica and F. glutinosa, Arum hygrophilum, Helicophyllum crassipes, Colladonia crenata. On reaching the ford of the Jabbok, we met with Lotus tenuifolius, L. lamprocarpus, Astragalus epiglottis, Typha latifolia, and Lythrum Græfferi. We took a refreshing bath in the Jabbok while awaiting our convoy. This *brook* is a noisy, turbulent stream, which at this season was almost a river.

The climb up the opposite hill proved a stiff one. A little way up we met with Andropogon hirtus. Several times the loads were brushed off backwards in the narrow passes of the road, or were pushed away by projecting branches, and had to be untied and carried on the backs of the

muleteers beyond the obstruction. We found nothing of interest on the hillside until near its top, where we fell in with Plantago lanceolata, var. altissima, nearly 3 feet high, Orchis sancta, and Polygala Monspeliaca. Botanically speaking, this was the least productive day of all our journey. Just before entering the village Daûd shot a large wild cat, the only one we saw during our journey. Two gazelles were startled by the mules, but made off too quickly to be shot.

The birds of the day were Turdus merula, Accipiter nisus, Neophron percnopterus, Sylvia atricapilla, Corvus monedula, Merops apiaster, Garrulus glandarius, and a considerable number of small birds seen, but not shot.

We arrived in camp at Burmah at a little before sunset. Barometer: B., 28·03; W., 27·98; mean, 28·005. Our tents were pitched in a grove of olive trees, by a rivulet which carries water to the village and adjacent fields.

Tuesday, *May* 4.—Camp at Burmah, 6.30 a.m. B., 28·03; W., 27·98; mean, 28·005. We had passed a restless night, the air being hot and dry. We again divided our party, the mules and baggage taking the straight road to 'Ajlûn and we making a detour by Gerash. Our guide, 'Ophnân, proved ignorant of the road, and we lost our way several times. We kept nearly on a level, along the ridge which forms the left flank of the Wadi-Zerka. As we did not follow the road, we often had to force our way through rocky scrubs. We passed pomegranate bushes, Tulipa Oculus-solis, Celtis Australis, Calystegia sepium, Torilis triradiata, Alsine decipiens, and Ceratonia siliqua. After an hour we sighted the wretched village of Jejazi, a little distance below our path. It is difficult for one not accustomed to botanizing on horseback to appreciate the difficulty of collecting in the East. The restive horse, accustomed to go steadily behind his fellows from morning till night, is quite unable to comprehend why his rider should dismount every few minutes while he plucks up some insignificant weed. He tugs at the bridle, neighs at his companions, paws the ground in his impatience, and often, taking advantage of an unguarded moment, breaks away and starts off at a full gallop, leaving the botanist to follow as he may on foot, and pick up his saddle-bags or their contents strewn along the road.

Our morning's ride gave us, in addition to the afore-mentioned, Anacamptis pyramidalis, Ophrys apifera, Silene juncea, Bongardia chrysogonum.

The first view of Gerash is imposing, and the impression grows as one examines the ruins in detail. The left bank of the stream, opposite the ruins, is occupied by a flourishing Circassian village. On the aqueduct bridge I found a Celsia heterophylla growing between the chinks of the stones. Its nearest-known neighbours grow near 'Aintab and Marash. Dr. Kay shot a bird on top of one of the columns of the Temple of the Sun. As it fell on the edge of the capital he could only get it by sending a well-aimed rifle ball through the edge of the stone, splintering off a small fragment, which carried the bird clear over the other side of

the column. It fell minus a few feathers, and now graces the College collection ; it proved to be Merops Ægyptiacus.

We lunched at the great fountain. While there we received an urgent invitation from the Kaimakam to take a cup of tea with him, but, knowing the delays and ceremonies of such visits, we respectfully declined, and as soon as possible took up our line of march toward Sûf and 'Ajlûn. Soon after leaving Gerash we passed a Viscum cruciatum, parasitic on Cratægus Azarolus. Presently the wind veered around to the west, and after the parching heat of the forenoon we had a cool and refreshing breeze for the remainder of the day. Soon we found Trifolium physodes on a shady bank by the roadside ; then a new Æthionema (Gileadense, Post), but unfortunately only one specimen, and in a state too advanced for perfect description.

Soon we found a new Scrophularia of the scattered sparsely-leaved division (S. Gileadensis, Post), a new species well characterised by its large, almost globular flowers, and small scattered, laciniate leaves. After passing Sûf we entered a scrub similar to that of the morning, with plenty of red and white rock rose. Farther on we encountered open groves and grassy glades, in one of which we discovered Anthriscus sylvestris. The last hour of our ride was through romantic scenery, at one point through a pass with precipitous moss-covered rocks on either side, crowned with trees and fringed with over-hanging shrubs. From this beautiful glen we emerged rather abruptly into the clearing around the village of 'Ain-Jenneh, opposite which our camp was pitched.

The birds of the day were Columba livia, Turdus merula, Turtur auritus, Buteo vulgaris, Coracias garrula, Garrulus glandarius, Corvus frugilegus, Saxicola œnanthe, Alauda cristata, Emberiza cæsia, Monticola cyanus, Lanius auriculatus, Corvus cornix, Philomela luscinia.

Our camp lay in a green meadow, opposite the imposing Kal'at-er-Rabadh. Barometer : B., 27·48 ; W., 27·37 ; mean, 27·425.

Wednesday, *May* 5.—Camp at 'Ain-Jenneh. Barometer : B., 27·44 ; W., 27·33 ; mean, 27·385. The fall in the barometer during the night corresponded with signs of rain in the sky and air. Fearing for our collections we left the tops of our tents standing over our luggage, with strict injunctions to the muleteers not to take them down until we gave the signal from the top of the hill. We then rode up to the castle (Kal'at-er-Rabadh). Our road lay up a rocky hill, wooded with oaks. Under the trees we found Erysimum scabrum, new for this region, Bellis perennis, Trifolium Boissieri, and in the tank near the castle Ranunculus aquatilis, var. submersus.

The view from the top of the castle (barometer : B., 26·64 ; W., 26·50 ; mean, 26·57) includes a large part of the Dead Sea, Jebel Husha', the whole of the range of Palestine, *Southern Lebanon*, Hermon, all of the Jordan valley except the portion just to the west, which is cut off by a spur of the hill. Galilee is seen with special distinctness. Haurân and Eastern Gilead are not visible from this point. The special interest of

the surrounding region centres in the life of Jephthah and the tragical end of his ill-fated daughter.

The signs of rain diminishing, we sent our guide down to start the cavalcade, but, with the idiosyncrasy of the country, the muleteers and our cook had pre-judged the case, struck the tents, and were already *en route* before we arrived at the foot of the hill. We were soon engaged again in the defile which leads out of the valley, and then turned to the left and pursued our course through a country diversified with clearings and patches of rocky woodland. The flora was in the main identical with that of the rolling uplands of Western Palestine—Cachrys goniocarpa, Leccokia Cretica, Trifolium erubescens, Medicago pentacycla, Synelcosciadium Carmeli, fine trees of Juglans regia. In a pool half-way from 'Ajlûn to Irbid, I found Alisma natans, not before noted in the Orient.

Just before reaching the watershed between Gilead and Haurân (barometer: B., 26·22; W., 26·15; mean, 26·185) we passed out of the woodland. This watershed was named for us by a passing Arab El-Musaîjah. From this point there is a fine view of Jebel-ed-Duruz and the green plain of Haurân. We left with regret the fine park-like scenery and cool air of the uplands of Gilead and dropped gradually into the plain, and encamped late in the evening at Irbid.

The birds of the day were Ciconia alba, Coracias garrula, Coturnix communis, Caccabis chukar, Buteo vulgaris, B. ferox, Accipiter nisus, Neophron percnopterus, Anthus campestris, Alauda cristata, Merops apiaster, Muscicapa grisola, Passer domesticus. Two large rabbits were seen, but escaped the bag.

Irbid is a postal and telegraph station, and we enjoyed once more the opportunity of communicating with our home. Barometer on the tell overlooking the town: B., 28·03; W., 27·93; mean, 27·98.

Thursday, May 6, 7 a.m.—Barometer: B., 28; W., 27·95; mean, 27·975. There is little of botanical interest to be found around the villages of the great interior plains of Syria. Immense heaps of garbage, and the accumulated refuse of many centuries harbour nettles and goose-weeds, and a few crucifers and grasses. Having soon disposed of these, we started across the great plain toward Der'ah, the ancient Edrei. Even the ruins here are in ruin, and little is left to occupy the antiquarian. But our march across the plain began to reveal the rich and interesting vegetation of Haurân. Astragalus oöcephalus, with white heads as large as a hen's egg, was the most conspicuous plant of the morning. We also collected A. cruciatus, and A. triradiatus. We passed the large root-leaves of summer Umbellifers, Composites, and Scrophulariaceæ, but too little developed for collection. Six weeks later a bounteous botanical harvest could be reaped of species seldom well represented in herbaria, many of them doubtless new to science.

The caves at Der'ah were walled up, and inaccessible without more labour and time than we cared to spend in their exploration.

After lunching at the fountain, and watching our caravan file up the

opposite hill and disappear over its crest, we spent a half-hour in observing the clamour and confusion at the well. A special study of Scripture history, with reference to the incidents and customs connected with the drawing of water, would furnish material for a moderate volume. An hour now and then spent at an oriental fountain will shed a bright ray of light on these customs, and reproduce many of the incidents. Women were drawing water, men were jostling and incommoding them; there was the *beginning of strife*, and, in fact, its middle and end; there were water jars (pitchers), and buckets (skins with a metal or wooden hoop at the mouth); some of the pitchers were broken at the cistern; there were flocks, and herds, and watering-troughs; we went up and asked for water, and they let down their jars from the shoulder and gave us to drink; there were women and men *sitting* by the well.

After this instructive half-hour we set out for our camp, four hours distant. Interesting plants began to increase in number, and the birds led us many a long chase into the fields. In our ardour we wandered too far to the south, and finally reached a pool where we found fine specimens of Butomus umbellatus, and a number of different species of birds, which Dr. Kay and Daûd commenced to shoot. Suddenly a couple of Turkish soldiers appeared over the brow of the hill and rode towards us and asked us with some anxiety whether we had been shooting. They seemed much relieved when we told them yes, and they told us that there were roving bands of Arab robbers in this region, and that it was highly unsafe. They then directed us to the main road, which lay half-an-hour to the north. Crossing the fields we fell in with Allium Schuberti, with its eight to ten-inch long rays, a Linum near L. Austriacum, possibly new Silybum Marianum, Onopordon Illyricum, and O. ambiguum.

The birds of the day were Ciconia alba, Coracias garrulus, Coturnix communis, Caccabis chukar, Buteo fulgens, B. ferox, Accipiter nisus, Nephron percnopterus, Anthus campestris, Alauda cristata, Merops apiaster, Muscicapa grisola, Passer domesticus, Corvus monedula.

At 6 p.m. we reached our camp at Et-Tayyibah. Our course for the afternoon had lain through Wady-Zeid, except during our detour to the southward. Barometer: B., 28·06; W., 27·95; mean, 28·005.

Friday, May 7, 7 a.m.—Barometer: B., 28·08; W., 27·99; mean, 28·045. Only to-day did we fairly realise the wealth of the Haurân flora. In the morning we collected—Linaria Damascena, Reseda Luteola, Lotus Gebelia, Valerianella truncata, V. diodon, Asphodeline Damascena, Salvia acetabulosa, S. molucella, Lathyrus Cicera, which is cultivated under the name of Jilban; and in the afternoon—Astragalus conduplicatus, A. brachyceras, A. triradiatus, A. scorpioides (new for this region), A. Alexandrinus, Mericarpæa vaillantioides, Onobrychis Cadmea, *Teucrium Auraniticum*, Post (new), Smyrniopsis cachroides Cephalaria Syriaca, var. sessilis, Fritillaria Libanotica, Pterocephalus pulverulentus, Smyrnium connatum, and a large number of other plants

heretofore unknown in this region, beside a long list of those heretofore noted, and included in the list at the end of the article.

Our course lay to the south of Wady-Zeid, and the old Roman road which runs through it.

We stopped in the middle of the day to visit the remarkable ruins of Bosrah, and to replenish our exhausted supply of bread. The most interesting object there is the church, cloister, and house of the monk Bahûrah, from whom Mohammed received so many of his ideas afterward embodied in the Koran.

The birds of the day were substantially the same as those of the day before.

Our camp for the night was pitched at a short distance from the village of Kureyah, the first of the district of Jebel-ed-Durûz. Barometer: B., 26·49; W., 26·43; mean, 26·46.

Saturday, *May* 8.—Camp at Kureyah, 9 a.m. Barometer: B., 26·48; W., 26·41; mean, 26·445. In the place of public assembly of Kureyah there is a portico. On one of the stones is the following inscription, in four lines:—

ΑΤΑΘΗΤΥΧΗ
ΕΚΤΙϹΘΗΗΜΛΛΝΕΕΤΟΥϹΡϥ
ΤΗϹΚϢΛΛΗϹ✶ ΚΠΡΟΝΟΝ
ΦΛΚΘΡΗΔΙΑΝΟΥΠΠ

We had passed a stone, evidently a tombstone, with an inscription, in the fields between Bosrah and Kureyah, the preceding day, of which the accompanying figure gives the inscription:—

ΛΛΟΜΙ
ΧΟϹ
ΛΛΟΜΙ
ΧΟΥ

Qurêyah is the first of the villages of Bashan, which we had seen with stone doors and windows in a tolerable state of preservation. In most of the houses of Haurân and the Jebel-ed-Durûz the roofs are composed of slabs of basaltic stone, laid on stone lintels supported by irregular stone pillars. At Qurêyah we discovered *Ferulago Auranitica*, Post.

We broke camp at Qurêyah at 10 a.m., and began a leisurely march to El-Kûfr, at the base of the volcanic cone of Jebel-Kuleib. About an hour above the village we passed a mill. In the wet ground about the mill-race I found Ranunculus Chærophyllus, and a little farther on, in the muddy soil along the stream, the new species, *Alopecurus involucratus*, Post, which seems a connecting link between Alopecurus and Cornucopiæ. In the neighbourhood of the brook, I found abundance of Aira capillaris and

Melica Cupani, and a little further on, in a field, *Trifolium Alsadami*, Post. The road winds through rocky fields and shrubby places. Under a rock, shortly before reaching el-Kûfr, we met with fine specimens of Anchusa neglecta, and a variety of Alkanna Orientalis, with entire leaves. The only "oaks of Bashan" that we saw during this day were Q. coccifera. About el-Kûfr itself we found thickets of Cratægus Azarolus, C. monogyna, Pistacia Terebinthus, Rhus Coriaria. Growing from the rocks by the roadside were fine specimens of Scrophularia variegata, M. B. var. Libanotica. In the fields we found Salix fragilis, Fumaria officinalis, Alyssum umbellatum, Lithospermum incrassatum. The plain about el-Kûfr, at the base of the cone of Jebel Kuleib, is cut up into quadrangular enclosures by stone fences, which are generally lined by shrubbery. These copses abound in birds.

The bag of the day was Neophron percnopterus, Ciconia alba, Lanius collurio, Emberiza melanocephala, E. miliaria, Linota cannabina, Hirundo rustica, Melanocorypha calandra, Sylvia atricapilla, S. orpheus, Hypolaïs elaïca, Buteo ferox, Oriolus galbula, Saxicola œnanthe, Saxicola sp., Muscicapa grisola, Milvus sp., Coturnix communis.

We arrived at an early hour in the afternoon, and encamped in a field just outside the village, by the mountain rill which supplies it with water. The proper name of the village is el-Kûfr, which means *unbelief* or *infidelity*, but as this name is one of ill repute in the East, it is softened in ordinary usage to el-Kefr, which signifies *the village*, and is so found in the maps. An hour to the south is the village of Hebrân, which we did not visit.

The latter part of the afternoon was spent in the much-needed work of sorting our specimens and papers, writing up memoranda and labels, and packing such specimens as were sufficiently dry not to require farther attention. The barometer at 7 p.m. stood: B., 25·50; W., 25·43; mean, 25·465. A drizzling rain prevented our doing any outside work, and especially from sunning our specimens, which had not been overhauled during the week of travel.

Our camp was in full view of the cone of Jebel Kuleib, of which I made the sketch which appears on the following page.

During the night there was a high wind, but no rain. Sunday, May 9. Notwithstanding the wind of the preceding day, the morning broke clear and bright. Barometer: B., 25·49; W., 28·39; mean, 25·44. The Sheikh of the village invited us to dine with him, but we declined the invitation. Daûd Salîm, however, went to visit some of his Durûz relations at Sohwat-el-Blât, a village two hours to the north-west, at the base of Jebel Kuleib. He found that they were engaged in the wedding festivities of one of the young men of his family. He gave us the following account of the feast.

After the reception and formalities of salutation, a cup of water was brought to him by an attendant, who also carried a basin, and he was told to pour the water over his right-hand as an act of ablution. A huge platter 6 feet in diameter, made of tinned copper, was then brought in,

on which was piled a mountain of boiled crushed wheat mingled with morsels of boiled meat. When this had been set in place, a dish of melted clarified butter was poured over the wheat until it was quite

SKETCH OF JEBEL KULEIB FROM EL-KUFR.

saturated. Loaves of bread in the form of cakes were placed by the side of the platter, and the guests, rolling up their sleeves, proceeded to help themselves with their fingers, and consumed the provisions, as is usual, in silence. Water and soap were then passed around to the guests, who washed off the remains of their greasy meal, after which coffee and pipes were served. It was not till rather a late hour that he rode back to camp, somewhat fatigued by the ceremonious attentions which he had received. As most of the people of el-Kûfr had gone to the reception, we were unable to assemble them for any religious services in camp.

7 p.m.—Barometer : B., 25·43 ; W., 25·35 ; mean, 25·39.

Monday, May 10th.—Barometer, 5.30 a.m. : B., 25·43 ; W., 25·43 ; mean, 25·43. On this, as on several other occasions, the behaviour of our barometers was such as to cause us to doubt the value of the aneroid for accurate determinations, either in meteorology or height of location. The morning broke windy and cloudy, and we felt many misgivings about the journey of the day, especially as to exposing our collections, which, however, we sent around by the short road to Suweidah, while we planned the long journey over Jebel Kuleib and el-Jowalîl, to Konawât, and so back to Suweidah.

The first part of the ascent from el-Kûfr to Jebel Kuleib lay through stony fields, with copses of the various shrubs and trees mentioned in the narrative of yesterday. On the way up we collected Cerastium

anomalum, Hypericum scabrum, Poterium verrucosum, Rosa canina, Glaucium Arabicum (a species of which the range extends from Sinai to two days north of Damascus), Hippomarathrum Boissieri, Prangos ferulacea, then a fine new Verbascum (Qulebicum, Post) with cob-webby indument, and a tall stiff compound panicle, Nepeta marrubioides, Muscari longipes, Bromus Haussknechtii, and here and there dwarf specimens of Pistacia Terebinthus (var. Palæstina). The ascent of the cone is steep. The declivity is covered with pumice, and furnishes rather an infirm foothold for the feet of either horses or pedestrians. Half way up the main cone is a small shelf, doubtless once a side vent of the ancient volcano. It is now a low truncated cone with an inconsiderable ruin, which we did not examine, at its apex. The crater at the top is nearly filled up with scoriæ and soil, and lined with a thicket of Pistacia Terebinthus and Quercus coccifera. We found at and near the top an immature species of Dianthus near D. Libanotis, Cotoneaster nummularia, Bromus erectus, and several other plants too immature for determination. The middle or end of June would be the time for the harvest at the top of Kuleib. Passing over the summit and down the northern declivity of the cone we found among the pebbles of pumice Thalictrum isopyroides (quite new for the Levant), Vicia tenuifolia, Geranium tuberosum, Anthriscus nemorosa (new for Syria), Solenanthus amplifolius, Lonicera mummularifolia. Near the base Astragalus Bethlehemiticus, A. Aintabicus, A. deinacanthus, A. angustifolius, Allium Erdelii, Myosotis refracta, M. hispida, Cratægus monogyna.

The barometer at the top of Jebel Kuleib stood: B., 24·37; W., 27·43; mean, 24·40. The morning was misty and windy, and the air at the top of Jebel Kulêb was raw and searching. The road from Kuleib to el-Jowalîl was over a plateau, with rolling volcanic hills rising confusedly on every side, nearly bare of vegetation. El-Jowalîl (Barometer, 12 a.m.: B., 24·21; W., 24·19; mean, 24·20), is naked, with the exception of a few scrubby trees, among which we noted an obtuse mucronate-leaved variety of Pyrus Syriaca. The peak has lost its crateriform summit, and is not picturesque or striking in any way. Arab encampments were to be seen in several of the plains between the hills, and flocks of cattle and goats were browsing on the scanty herbage. We found Arabis auriculata, Alyssum Szowitsianum, and Holosteum liniflorum on the top. The wind was so strong that our horses could not face it, and we were obliged to climb rather than walk to the summit. We were glad to get down from the bleak mountain top into the valley to the north of the peak. We followed this valley down to Konawât.

The clouds, which had been threatening us all day, began to pour down rain just as we entered Konawât. We were obliged to make a hasty and unsatisfactory inspection of the magnificent ruins, and found only one botanical specimen of interest, Melissa officinalis. From Konawât to Suweidah we rode in a cold driving rain, and notwithstanding our india-rubber clothing, arrived drenched and chilled to the bone. Fortunately our camp had been pitched before the storm, and our bedding

and collections were dry. We encamped in a field east of the town. We had hardly entered our tent before the teacher of the village school called and politely invited us to dine. In our chilled and wearied state we felt obliged to decline his invitation. In the evening I again tried the telegraph, but with the same result as in all my previous efforts east of the Jordan. We tried in vain to wake up the operator at Damascus, and get the wire through to Beirût. I left my message to go as early as might be in the morning, hoping to receive an answer at Damascus after two days, a hope doomed to disappointment, as our message was two days in arriving. I have known one to be a week in getting from Alexandretta to Beirût.

The barometer at 8.30 p.m. in our camp stood : B., 26·35 ; W., 26·30 ; mean, 26·325.

The birds of the day were Oriolus galbulus, Emberiza miliaria, Anthus campestris, Coturnix communis, Caccabis chukar, Turtur auritus, Ciconia alba, Gyps fulvus, Milvus sp., Calandrella brachydactyla, Alauda cristata, Saxicola sp., Hirundo rustica.

Tuesday, May 11.—Camp at Suweidah. Barometer, 6.30 a.m.: B., 26·38 ; W., 26·33 ; mean, 26·355. The morning rose misty and cloudy, but the sun gradually dispersed the vapour, and partly dried our well-soaked tent. By 9 o'clock we were on our way. The road at first passes between two stone walls. We found at this point Stachys Libanotica, a variety with densely woolly calyx, and an undeveloped Delphinium, probably D. orientale, J. Gay.

After an hour we passed through the village of 'Atîl, with a ruined temple, and later through Suleim. Near the latter we collected Nigella oxypetala, Ranunculus arvensis, L., var. rostratus, Lisæa Syriaca, Turgenia latifolia, Valerianella vesicaria. Soon after leaving Suleim we began to approach the volcanic cones about Shuhba. Just before reaching the old crater to the south of the village we found on the pumice *Centaurea Trachonitica*, Post, a species near to C. Hellenica, but differing in the strigose indument, longer peduncles, and the pappus.

The volcanic centre, by the lava overflow of which the Leja was formed, consists of a series of craters in the neighbourhood of Shuhba. Of these three retain their crateriform shape. The southernmost, El-Gharârat-el-Kiblîyah, is situated south-east of the town. The central is nearly due west. Both of these are black truncated cones, with a funnel-shaped excavation at the top, and sides at an angle of about 30°. The northernmost, Tell-Shîhan, was originally a cone, but the west wall has been forced out by the great lava stream, so that it now resembles a great arm-chair, with its back toward Shuhhba, and its seat toward the lava bed of the Leja, which seems to have flowed principally from this aperture. Around the crater of El-Gharârat-el-Kiblîyah is a wilderness of lava crags and peaks of most grotesque and rugged forms, and almost barren of vegetation. The lonely hollows of this lava waste are the chosen home of partridges. We started a covey of them as we entered the defile which leads up to Shuhba.

The lava stream from these craters is one of the most remarkable in the world. It is of a triangular form, with the apex toward the craters, and the base toward the Jordan valley and Hermon. The sides of this triangle are about thirty miles in length. The surface is like that of a storm-tossed sea, the waves of which have been suddenly turned into stone. Even the foam of the waves is represented in the jagged crests of these grey rock billows. The surface of the Leja is everywhere fissured by tranverse crevasses, in the centre of which are the places of defence and concealment which have given the district its name of *el-Leja=the Refuge*, and which have enabled the Druzes to defy and often to destroy the Turkish forces sent to reduce them to submission. The lava bed of the Leja is the most recent outpour, and overlies the great bed of volcanic rock which extends from northern Gilead to Aleppo.

The ruins of Shuhba are impressive, and very extensive. Among them I found a new Nepeta (*N. Trachonitica*, Post) with fine heads 1½ inch in length and 1 inch in diamener, and pink flowers.

We crossed the broad shallow wâdi which separates Shuhba from Tell-Shîhân. By the side of the torrent, and in its then dry bed, I found Salvia Russelii, a stranger not formerly observed south of Aleppo and Aintâb. The flanks of Tell-Shîhan are steep, and covered with pumice. We found on the way up Gypsophila viscosa (*Prangos melicocarpus*, var. *Trachonitica*, Post) with pruinose leaves and large brown fruits, and at the top, near the weli, Sisymbrium Sophia. The view from the summit is very extensive, embracing all the Leja, the northern part of Haurân, and the southern part of the Damascus plain, and the opposite ranges of Anti-Lebanon, Hermon, and the mountains of Galilee. The range of Gilead shuts off the view to the south. Barometer at summit, B. 26·27.

After enjoying this unique view, we led our horses down the steep sides of the northern face of the cone, and a little before sunset reached our camp at Umm-ez-Zeitûn=the Mother of Olives. Barometer: B., 27·06; W., 27·03; mean, 27·045.

The birds of the day were Milvius Ægyptiacus, Caccabis chukar, Coturnix communis, Saxicola sp., Anthus campestris, Accipiter nisus, Buteo sp., Oriolus galbulus, Ciconia alba, Turtur auritus, Hirundo rustica, Passer domesticus.

Wednesday, May 12.—Camp at Umm-ez-Zeitûn, 6.30 a.m. Barometer: B., 27·13; W., 27·15; mean, 27·14.

We were annoyed in the morning by the petty thefts of the people of Umm-ez-Zeitûn, and were obliged to keep a guard over our portable property, which had not been necessary during all our previous journeys. We were told that thieving ways are quite characteristic of the inhabitants of the Leja, a peculiarity doubtless attributable to their isolated position and political immunities. The number of small articles which they appropriated during the packing of our camp furniture was considerable, and at an earlier stage of our journey would have been much more annoying.

The Leja, with the exception of a little soil formed in the crevasses by the disintegration of the softer sorts of lava, is quite barren. Hence most

of the villages are along its edge, and live by the produce of the fertile plain of older volcanic rock and soil, over which the later desolating stream has flowed. It took us seven hours to pass the eastern side of the great triangle. The villages, mostly in ruins, are all about a quarter of an hour west of the road which separates the barren lava from the wheat-fields. On the way I collected a new Astragalus (*A. Trachoniticus*, Post) near Sowarat-el-Kebirah, and in a wheat-field, to the right of the road near Sowarat-es-Saghîrah, *Malcolmia Auranitica*, Post, unfortunately a single and undeveloped specimen. Otherwise the day yielded nothing of special interest except Allium Sindjarense, and A. Hierochuntinum, until we reached Brak. In crossing the scorched lava beds near that place, I found a well-pronounced variety of Thymus Syriaca, which is described among the new plants. Professor Oliver, of Kew, prefers to regard it and T. Syriaca, Boiss., as varieties of T. lanceolata, Sm. At Brak is a large stone building, erected by the Turkish Government as barracks for the soldiers now quartered there to overawe the Druzes and Arabs of the Leja. The barometer at 8.30 p.m. was B., 27·95 ; W., 27·89 ; mean, 27·92.

The birds of the day were Corvus monedula, Saxicola sp., Pterocles Senegalus, Alauda cristata, Anthus campestris, Emberiza miliaria, Passer domesticus, Saxicola œnanthe.

Thursday, May 13.—Camp at Brak, 5 a.m. Barometer : B., 27·97 ; W., 27·88 ; mean, 27·925.

While the muleteers were striking camp at an early hour in the morning, I started alone across the plain in the direction of Damascus. The air was fresh, and my jaded horse was able to gallop to the base of the hills which bound the plateau of Haurân. To the left of the road, on the flanks of Hermon, lay the rocky hills covered with Poterium spinosum, from the Arabic name of which the district takes its name, Aklîm-el-Billân. The look back over the table-land, before entering the chain of hills which separates it from the Damascus plain, is extensive. Beyond the green foreground of the wheat-fields of Brak lies the black, rugged, triangular lava sea of the Leja, and far away at its eastern angle the three craters from which it issued. Still more distant is the jagged range of the Jebel-ed-Durûz, with its numerous volcanic cones, ending in the striking peak of Jebel Kuleib. The plain of Haurân could be distinguished from the intervening Leja by its misty veil, which hid its greenness.

Soon after entering the range of hills, I passed a rounded headland to the left, with a single tree near its top. So striking an object as a tree in this desolate region is sure not to escape the Arabs, who have named the hill Tell-esh-Shajar (Hill of the Tree). I did not turn aside to identify it, but suppose from its shape that it must be one of the many oaks (Qu. coccifera), which form so striking a feature of the landscapes of Syria and Palestine.

The plants of this region are few. I found Lepidium Aucheri near Nedjhah. Haplophyllum Buxbaumii covers the stony fields with a mass of yellow waving flowers. The road, however, passes most of the way through the stony border of the plain, and not until arriving in the

irrigated gardens near Bab-Allah did I find any considerable number of plants. As it was not my object to include in this sketch the flora of Damascus, I did not stop to collect or record the numerous plants growing near the city. At 11.30, I arrived at the Victoria Hotel, where I lunched and remained until the caravan came up, in the middle of the afternoon. Barometer, 12 m.: B., 27·65; W., 27·67; mean, 27·66. Dr. Kay and myself took the night coach to Beirût, and arrived the following morning, after an absence of twenty-four days. Mr. Daûd Salîm assumed charge of the caravan, which arrived safely Monday evening, the 17th, without accident or injury to the collections.

The birds of the last day between Brak and Damascus were Emberiza melanocephala, E. cæsia, Aëdon galactodes, Pterocles Senegalus, Alauda cristata, Anthus campestris, Corvus cornix, Corvus sp., Turtur auritus, T. sp., Passer sp.

It will be seen from the foregoing narrative that the flora of Eastern Palestine differs from that of Palestine proper, in the addition of a large number of the plants of the table-land of Damascus. The considerable number (fifteen species) of new plants, besides many new varieties of well-known species, discovered in so short a journey, encourage the hope that more comprehensive and repeated tours will add very considerably to our list of Oriental plants, as well as contribute to the definition of their range and distribution.

Of the barometric observations, a table of which is appended, I can only remark that it furnishes another illustration of the idiosyncrasies of aneroids, and the inaccuracy of this mode of determining altitudes.

Table of Barometric Observations.

Date.	Hour.	Place.	Browning.	Watson.
April 19	5 p.m.	On boat, going to steamer (Beirût)	30·08	29·90
„ 20	7.30 a.m.	On boat, going to shore (Jaffa)	30·05	29·80
„ 20	10.30 p.m.	Second storey of Mediterranean Hotel, Jerusalem	27·37	27·20
„ 21	7 a.m.	Do. do. do.	27·39	27·19
„ 22	7 a.m.	Do. do. do.	27·36	27·12
„ 23	7 a.m.	Do. do. do.	27·38	27·16
„ 23	7.30 p.m.	New Bridge, Jordan Valley ..	31·60	31·50
„ 24	6 a.m.	Do. do. ..	31·55	31·58
„ 24	9 p.m.	Tell el Hammâm, Jordan Valley	30·66	30·70
„ 25	7 a.m.	Do. do. do.	30·80	30·75
„ 25	7.30 p.m.	Do. do. do.	30·63	30·65
„ 26	6.30 a.m.	Do. do. do.	30·72	30·68
„ 26	12 m.	'Ayûn Mûsa, at level of cave	28·50	—
„ 26	12 m.	'Ayûn Mûsa, upper fountain	28·45	28·40
„ 26	1.20 p.m.	Jebel Sîâghah, ruins	27·68	27·65
„ 26	2 p.m.	Jebel Sîâghah, south peak ..	27·66	27·63
„ 26	3 p.m.	Jebel Neba, highest point ..	27·26	27·28
„ 26	6.30 p.m.	Ma'în, in camp by cistern ..	27·14	27·06
„ 27	6 a.m.	Do. do. ..	27·16	27·05

Date.	Hour.	Place.	Browning.	Watson.
April 27	12 m.	Callirrhoë, chief spring ..	30·20	30·28
„ 27	8 p.m.	Camp at Ma'în..	27·15	27·05
„ 28	7 a.m.	Do.	27·16	27·13
„ 28	7.30 a.m.	Top of ruins at Ma'în.. ..	27·10	27·03
„ 28	7.30 p.m.	Ain Hesbân, on the stream near the road	27·56	27·58
„ 29	6 a.m.	Do. do. do.	27·51	27·48
„ 29	11.30 a.m.	Kusr-el-'Abd	28·23	28·27
„ 29	8 p.m.	Camp on hill W.S.W. of 'Ammân	27·05	27·00
„ 30	7 a.m.	Do. do. do.	27·20	27·15
„ 30	9 a.m.	At level of highest house in Ammân	27·33	27·33
„ 30	6 p.m.	Camp at Es-Salt, on platform, below Latin cemetery ..	27·23	27·20
May 1	6 a.m.	Do. do. do.	27·27	27·20
„ 1	1.30 p.m.	Height of the Wely on Jebel Husha'	26·48	26·43
„ 1	3 p.m.	Height of the northern peak on Jebel Husha'	26·22	26·19
„ 1	4 p.m.	Height of the southern peak on Jebel Husha'	26·27	26·22
„ 1	6 p.m.	Camp at Es-Salt	27·20	27·16
„ 2	7 a.m.	Do.	27·25	27·12
„ 2	7 p.m.	Castle of Es-Salt	26·85	26·91
„ 3	7 a.m.	Camp at Es-Salt	27·23	27·14
„ 3	7.30 p.m.	Camp at Burmah	28·03	27·98
„ 4	6.30 a.m.	Do.	28·03	27·98
„ 4	7 p.m.	Camp at 'Ajlûn	27·48	27·37
„ 5	7 a.m.	Do.	27·44	27·33
„ 5	8 a.m.	Top of Kal'at-er-Rabadh ..	26·64	26·50
„ 5	12 m.	Height of land on road from 'Ajlûn to El-Husn.. ..	26·22	26·15
„ 5	9 p.m.	Camp at Irbid	28·03	27·93
„ 6	7 a.m.	Do.	28·00	27·95
„ 6	6.30 p.m.	Camp at Tayyibah	28·06	27·95
„ 7	7 a.m.	Do.	28·08	27·90
„ 7	8 p.m.	Camp at Kureiyah	26·49	26·43
„ 8	9 a.m.	Do.	26·48	26·41
„ 8	7 p.m.	Camp at El-Kufr	25·50	25·43
„ 9	7.30 a.m.	Do.	25·49	25·39
„ 9	7 p.m.	Do.	25·43	25·35
„ 10	5.30 a.m.	Do.	25·43	25·43
„ 10	9 a.m.	Top of Jebel-Kuleib	24·37	24·43
„ 10	12 m.	Top of Jebel-el-Jowailfl ..	24·21	24·19
„ 10	8.30 p.m.	In camp at Suweidah	26·35	26·30
„ 11	8 a.m.	Do. do.	26·38	26·33
„ 11	4 p.m.	Top of Tell Shihân	26·27	—
„ 11	7 p.m.	Camp at Umm-ez-Zeitûn ..	27·06	27·03
„ 12	6.30 a.m.	Do. do. ..	27·13	27·05
„ 12	8.30 p.m.	Camp at Brak	27·95	27·89
„ 13	5 a.m.	Do.	27·97	27·88
„ 13	12 m.	Damascus, second storey Hotel Victoria	27·65	27·67

LIST OF PLANTS collected (or, in case of the more familiar species, observed) by the Author during a journey from April 23 to May 11, 1886, principally in Moab, Gilead, and Haurân. As the number of plants not heretofore noted in this region so largely exceeds the rest, they are not generally indicated. Plants found west of the Jordan are only mentioned if new in the region specified; new species and varieties are indicated by italics. The new species and varieties are published in the Transactions of the Linnæan Society for 1888.

I.—RANUNCULACEÆ.

1. Clematis cirrhosa, L. Thickets, Gilead.
2. Thalictrum isopyroïdes, C. A. M. Among pumice gravel on the northern slope of the cone of Jebel Kuleib.
3. Adonis Palæstina, Boiss. Plain of Sharon; table-land of Moab.
4. Aleppica, Boiss. Plain of Sharon.
5. autumnalis, L. Common in Moab, Gilead, and Haurân.
6. æstivalis, L. Ascent from Jordan valley to Moab, Haurân.
7. var. squarrosa, Boiss, Haurân.
8. dentata, Del., var. subinermis, Boiss. Haurân.
9. Ranunculus aquatilis, L., var. heterophyllus, D. C. Haurân.
10. var. submersus, Gr. et Godr. Gilead, Haurân.
11. calthæfolius, Jord. Haurân.
12. Damascenus, Boiss. et Gaill. Haurân.
13. Asiaticus, L. Moab, Gilead.
14. Chærophyllos, L. Haurân.
15. myriophyllus, Russ. Moab, Gilead, Haurân.
16. var. Hierosolymitanus (R. Hierosolymitanus, Boiss). Moab, Gilead.
17. lomatocarpus, F. and M. Everywhere.
18. *arvensis, L., var. rostratus*, Post. Haurân.
19. Ceratocephalus falcatus, Pers., var. exscapus, Boiss. Haurân.
20. Nigella oxypetala, Boiss. Between Suweidah and Shuhbah, Haurân.
21. ciliaris, D. C. 'Arâq-el-Emîr.
22. Delphinium sp., probably Orientale, J. Gay (immature). Suweidah, Haurân.

II.—BERBERIDACEÆ.

23. Leontice leontopetalum, L. Gilead, Haurân.
24. Bongardia Chrysogonum, L. Gilead.

III.—PAPAVERACEÆ.

25. Papaver Rhœas, L., var. Syriacum, Boiss. Moab, Gilead, Haurân. This species includes P. stylatum, Boiss. et Bal., P. umbonatum, Boiss., and P. clavatum, Boiss. et Haussk., and probably P. commutatum, F. et M., and P., polytrichum, Boiss. et Ky., all of which have intermediate forms connecting the series.
26. Argemone, L. Moab, Gilead, Haurân, Damascus.
27. Rœmeria hybrida, L. Moab, Gilead, Haurân.
28. Glaucium corniculatum, L. Khan Hathrurah, between Jerusalem and Jericho.
29. Arabicum, Fresen. Southern slope of Jebel Kuleib; plain of Damascus as far as Deir 'Atîyah. Heretofore only observed in Sinai.
30. grandiflorum, Boiss. et Huet. Haurân.
31. Hypecoüm procumbens, L. Moab, Gilead, Haurân.
    var. grandiflorum (H. grandiflorum, Benth.). Gilead.

IV.—FUMARIACEÆ.

32. Ceratocapnos Palæstina, Boiss. Gilead.
33. Fumaria officinalis, L. Fields near El-Kufr, Jebel Kuleib.
34. micrantha, Lag. Moab, Gilead.
35. parviflora, Lam. Ascent from Jordan to Moab.

V.—CRUCIFERÆ.

36. Matthiola bicornis, Sibth et Sm. Khan Hathrûrah, Shittim plain.
37. oxyceras, D. C. Shittim plain, Callirrhoë. A very variable species. Farther study will probably cause it and M. livida, Del., to be considered as varieties of M. bicornis.
38. Nasturtium officinale, R. Br. Wet places; Moab, Gilead, Haurân.
39. Arabis auriculata, Lam. Top of Jebel-el-Jowailîl.
40. Notoceras Canariense, R. Br. Shittim plain; lower slopes of Nebo.
41. Hesperis pendula, D. C. Woods south of Es-Salt. Prof. Paine notes H. secundiflora, Boiss. et Sprun, in the neighbourhood of Jebel Husha', and in the Wady-ez-Zerka. The writer, after much search, failed to find this species either in Gilead or Moab.
42. Malcolmia Africana, L. Plain of Damascus.
43. *Auranitica*, Post. In a wheat-field by the roadside, east of Sowarat-el-Saghîri.
44. torulosa, Desf. Table-land of Moab and northward.
45. var. leiocarpa, Boiss. Haurân.
46. crenulata, D. C. Haurân.

47. Sisymbrium pumilum, Steph. Wall of Jerusalem near Tower of David ; Haurân.
48. Sophia, L. Haurân ; top of Tell Shihân, Wady-el-Karn, Anti-Lebanon.
49. Irio, L. Moab, Jordan valley.
50. Columnæ, Jacq. Gilead, Haurân, Wady-el-Karn.
51. erysimoides, Desf. At the bottom of the descent from Jerusalem to Jericho, at the edge of the plain.
52. Damascenum, Boiss. et Gaill. Wady-el-Karn.
53. officinale, L. Everywhere.
54. runcinatum, Lag. Haurân.
55. Erysimum repandum, L. Moab, Gilead.
56. var. rigidum, Boiss. Moab, Gilead, Haurân.
57. scabrum, D. C. Kal'at-er-Rabadh, Gilead.
58. crassipes, C. A. M. Mountains and table-land of Moab and Gilead.
59. Brassica Tournefortii, Gou. Flanks of Nebo, Moab.
60. adpressa, Mœnch (Hirschfeldia adpressa, Mœnch in Boiss. Fl. Or. I. 390). Common throughout.
61. Sinapis arvensis, L. Moab, Gilead.
62. var. Orientalis, Boiss. Haurân.
63. alba, L. Moab, Gilead, Haurân.
64. *Diplotaxis viminea, L., var. foliosa*, Post. Plain of Sharon.
65. var. integrifolia, Boiss. Khan Hathrûrah.
66. Harra, Forsk. Khan Hathrûrah, and thence to Jordan plain. In all the hot wadies opening into valley of Jordan and Dead Sea.
67. *var. glabra*, Post. Wady-el-Karn.
68. erucoides, L. Moab, Gilead, Haurân.
69. Eruca sativa, L. Moab, Gilead, Haurân. This species has, in Syria and Palestine, light-yellow lilac-veined petals. E. Cappadocica, Boiss., would seem, then, to be a variety with somewhat longer pods and larger seeds. The foliage of E. sativa varies, as does that of many crucifers.
70. Carrichtera Vellæ, D. C. Jabbok valley ; flanks of Nebo ; valleys on both sides of Dead Sea and Jordan.
71. Fibigia clypeata, L., var. eriocarpa (F. eriocarpa, D. C.). Jebel Husha'.
72. Alyssum umbellatum, Desv. Roadside in El-Kûfr.
73. Szowitsianum, F. et M. Jebel-el-Jawailîl.
74. campestre, L. genuinum, Boiss. Gilead, Haurân.
75. aureum, Fenyl. Haurân.
76. meniocoides, Boiss. Damascus plain.
77. Capsella Bursa-Pastoris, L. Everywhere.
78. Lepidium sativum, L. Walls of Jerusalem.
79. spinescens, D. C. Gilead, Haurân.
80. Aucheri. Between Nedjha and Tell-esh-Shajar, on the road between Damascus and Brak.

81. Lepidium Draba, L. Moab, Haurân.
82. Chalepense, L. Gilead. Probably a narrow fruited variety of the last.
83. crassifolium, W. K. Merj of Damascus.
84. Æthionema heterocarpum, J. Gay. Gilead.
85. *Gileadense*, Post. In a thicket by the roadside at the edge of the table-land, two hours from Es-Salt.
86. Biscutella Columnæ, Ten. Moab, Gilead, Haurân.
87. Peltaria angustifolia, D. C. Jebel Kuleib, Haurân.
88. Clypeola jonthlaspi, L. Gilead.
89. Isatis Aleppica, Scop. Moab, Gilead, Haurân.
90. Neslia paniculata, Desv. Moab, Gilead, Haurân.
91. Texiera glastifolia. Haurân, Wady-el-Karn.
92. Calepina Corvini, All. Ped. Moab, Gilead, Haurân.
93. Ochthodium Ægyptiacum, L. Moab, Gilead, Haurân.
94. Crambe Orientalis, L. Haurân.
95. Hispanica, L. Moab, Gilead.
96. Rapistrum rugosum, L. Moab, Gilead, Haurân.
97. Enarthrocarpus strangulatus, Boiss. Wady-Zerka-Ma'în.
98. Erucaria Aleppica, Gaertn. Moab, Gilead, Haurân.
99. *var. horizontalis*, Post. Pods horizontal. Nedjha, Damascus plain.
100. Raphanus sativus, L. Everywhere.

VI.—CAPPARIDEÆ.

101. Cleome trinervia, Fresen. On the steep hill side, going from Ma'în down to Callirrhoë.
102. Capparis spinosa, L. Hanging from face of cliffs and walls, common.

VII.—RESEDACEÆ.

103. Ochradenus baccatus, Del. Valley of Zerka-Ma'în, about Callirrhoë.
104. Reseda alba, L. Wady-Kelt, Moab, Haurân.
105. lutea, L. Moab, Gilead, Haurân.
106. muricata, Presl. Wady-Kelt.
107. Luteola, L. Haurân.

VIII.—CISTINEÆ.

108. Cistus villosus, L. Mountains of Moab and Gilead.
109. salviæfolius, L. Mountains of Moab and Gilead.
110. Helianthemum Niloticum, L. Gilead.
111. var. microcarpum, Cors. Lower Jordan.
112. salicifolium, L. Moab, Gilead, Haurân.
113. Ægyptiacum, L. Jerusalem.

114. Helianthemum Kahiricum, Del. Wadies about Dead Sea.
115. *var. depauperatum*, Post. Callirrhoë.
116. Lippii, L. Callirrhoë.
117. var. micranthum, Boiss. Callirrhoë.
118. vesicarium, Boiss. Mountains of Moab.
119. Fumana Arabica, L. Moab, Gilead.
120. glutinosa, L. Moab, Gilead.

IX.—POLYGALEÆ.

121. Polygala Monspeliaca, L. Grassy places, Gilead.

X.—FRANKENIACEÆ.

122. Frankenia pulverulenta, L. Tell-el-Hammâm, Callirrhoë.

XI.—SILENEÆ.

123. Dianthus multipunctatus, Ser. Flanks of Nebo.
124. *var. pruinosus*, Post. On hot rocks below Khan Hathrûrah in Wadi-Kelt.
125. *Auraniticus*, Post. Haurân, between Irbid and Bosrah.
126. sp. probably Libanotis, Labill., but without flowers. At the top of the cone of Jebel Kuleib.
126A. Gypsophila Rokejeka, Del. Hot rocks on road from Khan Hathrûrah to Jordan plain; Haurân.
127. Damascena, Boiss. Table-land of Moab.
128. viscosa, Murr. Tell Shihân.
129. Saponaria Vaccaria, L. Everywhere.
130. oxyodonta, Boiss. Fields, Es-Salt.
131. Silene conoidea, L. Nebo, Es-Salt.
132. macrodonta, Boiss. Tell-er-Ramé, Nebo.
133. muscipula, L. Plain of Sharon.
134. goniocalyx, Boiss. 'Ajlûn.
135. racemosa, Otth. Wall of Jerusalem.
136. apetala, Willd. Wall of Jerusalem.
137. hirsuta, Lag., var. Sibthorpiana, Boiss. Flanks of Nebo. This plant may be distinguished from T. hispida, Desf., by the fact that it has no alar flowers, that its calyx is not contracted in fruit, and the calyx teeth are obtuse.
138. Behen, L. Plain of Sharon, Gilead, Moab.
139. Palæstina, Boiss. Plain of Sharon.
140. Oliveriana, Otth. Es-Salt, el-Ghor, Plain of Moab.
141. bipartita, Desf. Everywhere.
142. Atocion, Murr. Moab, Gilead, Haurân.
143. inflata, Sm. Everywhere.

144. Silene longipetala, Vent. Jebel Kuleib, Jebel Husha'.
145. juncea, Sibth. Gilead.
146. Tunica pachygona, F. et M., var. scabra (T. Arabica, Boiss). Shittim plain, between Nimrîn and Tell-el-Hammâm. This species is also found about Aintâb. The intermediate forms are such as to make T. Arabica an untenable species.

XII.—ALSINEÆ.

147. Holosteum liniflorum, Stev. Flanks and top of El-Jowailîl.
148. Cerastium dichotomum, L. Gilead, Haurân.
149. anomalum, W. K. Jebel Kuleib.
150. vulgatum, L. Moab, Gilead.
151. Stellaria media, L. Everywhere.
152. Arenaria leptoclados, Rchb. Gilead.
153. graveolens, Schreb, var. minuta. Jebel 'Ajlûn.
154. Alsine decipiens, Fenzl. Moab, Gilead.
155. Smithii, Fenzl. Jubel Kuleib.
156. picta, S. et Sm. Nebo, near ruins of Sîâghah ; Haurân.
157. tenuifolia, L. Common.
158. Spergula arvensis, L. El-Ghor.
159. diandra, Guss. El-Ghor, Wilderness of Judea.

XIII.—PARONYCHIEÆ.

160. Herniaria cinerea, D. C. Gilead, El-Ghor.
161. hemistemon, J. Gay. Khan Hathrûrah.
162. Paronychia argentea, L. Common throughout.
163. nivea, D. Moab, Gilead.
164. *var. obtusa*, Post. Ain-Hesban to Ammân.
165. *var. attenuata*, Post. Ain-Hesban to Ammân.
166. Gympocarpum fruticosum, Pers. Wilderness of Judea.
167. Pteranthus echinatus, Desf. Wilderness of Judea.

XIV.—TAMARISCINEÆ.

168. Tamarix tetragyna, Ehr. Damascus.
169. Jordanis, Boiss. At Pilgrim's bathing place, and along the Jordan.
170. mannifera, Ehr. Callirrhoë.
171. Reaumuria Palæstina, Boiss. Wilderness of Judea, Callirrhoë.

XV.—HYPERICINEÆ.

172. Hypericum scrabrum, L. Jebel Kuleib.
173. crispum, L. Jebel Husha'.

XVI.—MALVACEÆ.

174. Alcea acaulis, Cavan. Moab, Gilead, Haurân.
175. setosa, Boiss. Moab, Gilead.
176. rufescens, Boiss. On the road from Ma'în to Callirrhoë.
177. Malva rotundifolia, L. Everywhere.
178. Cretica, Cavan. Moab.
179. parviflora, L. New bridge over the Jordan.
180. oxyloba, Boiss. New bridge over the Jordan.
181. sylvestris, L. Gilead.
182. *var. oxyloba*, Post. Tell-er-Ramé. A specimen of this variety is also found in Kew Herbarium.
183. Malvella Sherardiana, L. Gilead, Haurân.

XVII.—LINACEÆ.

184. Linum strictum, L. Moab, Gilead.
185. nodiflorum, L. Moab, Gilead.
186. Syriacum, Boiss. et Gaill. Moab, Gilead.
187. pubescens, Russ. Moab, Gilead.
188. sp. near Austriacum. Haurân.

XVIII.—ZYGOPHYLLEÆ.

189. Nitraria tridentata, Desf. El-Ghor.
190. Zygophyllum dumosum, Boiss. Lower part of road from Khan Hathrûrah to el-Ghor.
191. Fagonia glutinosa, Del. Callirrhoë.
192. grandiflora, Boiss. Lower part of Wilderness of Judea.
193. mollis, Del. Between Mar Saba and Dead Sea.
194. Peganum Harmala, L. Ascent from el-Ghor.

XIX.—GERANIACEÆ.

195. Geranium tuberosum, L. Ascent from el-Ghor to Nebo.
196. rotundifolium, L. General.
197. molle, L. General.
198. lucidum, L. Ascent from el-Ghor to Nebo.
199. Erodium Romanum, L. 'Ammân.
200. dissectum, L. Moab.
201. cicutarium, L. Moab, Gilead, Haurân.
202. cichonium, L. Haurân.
203. gruinum, L. Moab, Gilead.
204. laciniatum, Cav. Flanks of Nebo.
205. moschatum, L. Moab.

206. Erodium malacoides, L. Gilead.
207. hirtum, Forsk. Hot valleys debouching into Dead Sea.
208. glaucophyllum, Ait. Near Khan Hathrûrah. The size of the leaves in this species varies in different specimens from 5 lines to 3 inches long.

XX.—RUTACEÆ.

209. Haplophyllum Buxbaumii, Poir. Ascent to Nebo, Haurân.
210. var. corymbulosum, Boiss. Shittim Plain.
211. longifolium, Boiss. Hot rocks on both flanks of el-Ghor.

XXI.—SIMARUBEÆ.

212. Balanites Ægyptiaca, Del. Plain of Jericho.

XXII.—TEREBINTHACEÆ.

213. Rhus Coriaria, L. Jebel Husha', Jebel-ed-Durûz.
214. Pistacia Terebinthus, L., var. Palæstina (P. Palæstina, Boiss). Moab, Gilead, Jebel-ed-Durûz.

XXIII.—RHAMNEÆ.

215. Zizyphus Spina-Christi, L. El-Ghor on both sides of Jordan.
216. Rhamnus punctata, Boiss. Moab, Gilead.
Palæstina, Boiss. Ascent to Moab.

XXIV.—MORINGEÆ.

217. Moringa aptera, Gærta. Callirrhoë, on the road to Ma'în, a few hundred yards from the springs. I met with only one tree, and close by it a tree of Acacia tortilis.

XXV.—LEGUMINOSEÆ.

218. Anagyris fœtida, L. Woods south of Es-Salt.
219. Retama Rœtam, Forsk. El-Ghor, and the lower mountains flanking it.
220. Ononis Natrix, L. Moab, Gilead.
221. var. stenophylla, Boiss. Moab.
222. *var. laxiuscula*, Post. In pumice near Shuhba, Haurân.
223. Antiquorum, L. Ascent to Nebo.

224. Ononis ornithopodoides, L. Khan Hathrûrah.
225. biflora, Desf. Ma'în.
226. pubescens, L. Gilead.
227. hirta, Desf. Haurân, Plain of Sharon.
228. serrata, Forsk. Ma'în.
229. Calycotome villosa, L. Moab, Gilead.
230. Trigonella astroites, F. et M. Haurân.
231. spinosa, L. Moab.
232. monantha, C. A. M. Haurân.
233. Trigonella Cœle-Syriaca, Boiss. Haurân, var. with pods constricted between the seeds.
234. Hieroslymitana, Boiss. Moab, Gilead.
235. Kotschyi, Fenzl. Moab, Gilead.
236. spicata, L. Moab, Gilead.
237. Arabica, Del. El-Ghor.
238. radiata, L. Haurân.
239. Medicago scutellata, All. Moab, Haurân.
240. rotata, Boiss. Ma'în to Callirrhoë.
241. denticulata, Willd. Gilead, Haurân
242. pentacycla, D. C. Gilead.
243. tuberculata, Willd. Haurân.
244. coronata, Lam. Moab.
245. Trifolium arvense, L. Haurân.
246. stellatum, L. Flanks of Nebo.
247. angustifolium, L. Moab, Gilead, Haurân.
248. Haussknechtii, Boiss. Haurân.
249. *Alsadami*, Post. In a field near the mill above Kureiyah, on the road to El-Kûfr, at the base of Jebel-ed-Durûz.
250. scutatum, Boiss. Moab.
251. clypeatum, L. Gilead.
252. scabrum, L. Gilead.
253. pilulare, Boiss. Moab, Gilead, Haurân.
254. globosum, L. Haurân.
255. physodes, Stev. Gilead, Jebel-ed-Durûz.
256. spumosum, L. Haurân.
257. resupinatum, L. Common throughout.
258. tomentosum, L. Ascent from el-Ghor to Nebo.
259. xerocephalum, Fenzl. Jebel-el-Durûz.
260. repens, L. Moab.
261. Boissieri, Guss. 'Ajlûn, Gilead.
262. erubescens, Fenzl. Gilead.
263. procumbens, L. Gilead.
264. Hymenocarpus circinnatus, L. Common throughout.
265. Lotus Creticus, L. Gilead.
266. tenuifolius, Rchb. Ford of Jabbok.
267. lamprocarpus, Boiss. Ford of Jabbok.
268. Gebelia, Vent. genuinus, Boiss. Haurân.

269. Lotus conimbricencis, Brot. Moab.
270. peregrinus, L. Mountains of Moab.
271. Tetragonolobus Palæstina, Boiss. Moab. This species should probably rank only as a variety of T. purpureus, Mœnch.
272. Psoralea bituminosa, L. Moab, Gilead.
273. Glycyrrhiza glabra, L., var. violacea, Boiss. New bridge of the Jordan.
274. Astragalus epiglottis, L. Ford of Jabbok.
275. tribuloides, Del. Salihîyah, Damascus.
276. cruciatus, Link. Moab, Gilead, Haurân.
277. triradiatus, Bge. Haurân.
278. Damascenus, Boiss. et Gaill. Haurân.
279. callichroüs, Boiss. Khan Hathrûrah. Plain of Moab.
280. conduplicatus, Bertol. Haurân.
281. brachyceras, Ledeb. Moab.
282. hamosus. Moab.
283. scorpiodes. In wheat-fields between Bosrah and Kureiyah, Haurân.
284. cretaceus, Boiss. et Ky. Woods near Es-Salt.
285. vexillaris, Boiss. Bosrah to Kureiyah, near the latter, in a field by the path.
286. Christianus, L. Top of Jebel Husha', near the Nebi.
287. Alexandrinus, Boiss. Moab, Gilead, Haurân.
288. Alexandrinus, Boiss., var. elongatus, Barbey. Moab, Gilead.
289. neurocarpus, Boiss. Bosrah.
290. Bethlehemiticus, Boiss. Moab, Jebel Kuleib.
291. Aintabicus, Boiss. Jebel Kuleib.
292. deinacanthus, Boiss. Woods near Es-Salt; Jebel-ed-Durûz.
293. Forskahlei, Boiss. El-Ghor, 'Ayun Musa.
294. oocephalus, Boiss. Haurân.
295. sanctus, Boiss. Khan Hathrûrah. Moab, Gilead.
296. *Trachoniticus*, Post. Sowarat-el-Kebîrah.
297. angustifolius, Lam. Jebel Kuleib.
298. Dorycnium lamprocarpum, Boiss. Ford of Jabbok.
299. Scorpiurus sulcata, L. New bridge, Jordan.
300. Biserrula Pelecinus, L. Haurân.
301. Coronilla scorpioides, L. Moab, Haurân.
302. Onobrychis Crista.-Galli, L. Everywhere.
303. æquidentata, S. and Sm. Gilead.
304. gracilis, Bess. Moab, Gilead.
305. Cadmea, Boiss. Moab, Gilead, Haurân.
306. aurantiaca, Boiss. Gilead.
307. Vicia sericocarpa, Fenzl. Moab.
308. sativa, L. Everywhere.
309. lathyroides, L. Woods between Amman and Es-Salt.

310. Vicia peregrina, L. Woods south of Es-Salt. Haurân.
311. *Narbonensis, L., var pilosa*, Post. Woods south of Es-Salt.
312. serratifolia, Jacq. Leaves serrate from middle to apex. Haurân.
313. tenuifolia, Roth. Jebel Kuleib.
314. Ervilia, L. Moab, Gilead, Haurân.
315. Palæstina, Boiss. El-Ghor, Moab, Gilead.
316. gracilis, Loisel. Moab, Gilead.
317. Ervum Lenticula, Schreb. Woods south of Es-Salt.
318. Lens, L. Cultivated everywhere, and escaped.
319. Cicer arietinum, L. Cultivated everywhere, and run wild.
320. Lathyrus aphaca, L. Moab, Gilead.
321. amœnus, Fenzl. Moab, Gilead, Haurân.
322. Cicera, L. Haurân.
323. Hierosolymitanus, Boiss. Gilead.
324. Orobus sessilifolius, S. and Sm. Woods south of Es-Salt.
325. Pisum elatius, M. B. Moab, Gilead.
326. humile, Boiss, et Noë. Haurân.
327. Ceratonia Siliqua, L. Gilead.
328. Prosopis Stephaniana, M. B. Jordan valley.
329. Acacia tortilis, Hayne. Jordan valley, Callirrhoë.

XXVI.—ROSACEÆ.

330. Amygdalus communis, L. Gilead.
331. *var. minor*, Post. 'Ayun Musa.
332. Potentilla reptans, L. Gilead.
333. Poterium verrucosum, Ehr. Gilead, Jebel Kuleib.
334. spinosum, L. Common on rocky hill sides.
335. Rosa canina, L. var. coriacea, Boiss. Jebel Kuleib.
336. Rubus tomentosus, Borckh. Moab, Gilead.
337. Syrica, Boiss. El-Jowailîl. A specimen with obtuse obliquely mucronate leaves.
338. Cratægus Azarolus, L. Moab, Jebel Kuleib.
339. monogyna, Willd. Haurân, Jebel-ed-Durûz.
340. Cotoneaster nummularia, F. and M. Jebel Kuleib.

XXVII.—GRANATEÆ.

341. Punica Granatum, L. Gilead.

XXVIII.—MYRTACEÆ.

342. Myrtus communis, L. Gilead.

XXIX.—CRASSULACEÆ.

343. Umbilicus intermedius, Boiss. Moab, Gilead.
344. lineatus, Boiss. Shuhbah, at the edge of the Leja. This should be regarded only as a depauperated cymose variety of U. Libanotica, Labill.

XXX.—LYTHRARIEÆ.

345. Lythrum Græfferi, Ten. Moab, Gilead.

XXXI.—CUCURBITACEÆ.

346. Citrullus Colocynthis, L. El-Ghor.
347. Bryonia multiflora, Boiss. et Held. Gilead.

XXXII.—FICOIDEÆ.

348. Mesembryanthemum nodiflorum, L. El-Ghor, Callirrhoë.
349. Aizoön Canariense, L. Callirrhoë.

XXXIII.—UNBELLIFERÆ.

350. Eryngium glomeratum, Boiss. Haurân.
351. Creticum, L. Moab, Haurân.
352. Buplevrum nodiflorum, L. Gilead.
353. Astoma seselifolium, D. C. Es-Salt, Haurân.
354. Scaligeria Cretica, Un. Gilead.
355. Lagœcia cuminoides, L. Mountains of Moab.
356. Smyrnium connatum, Boiss. et Ky. Haurân.
357. olusatrum, L. Woods near Es-Salt.
358. Smyrniopsis (Opoponax ?) Syriaca, Boiss. Haurân.
359. cachroides, Boiss. Haurân.
360. Conium maculatum, L. Gilead.
361. Lecockia Cretica, Lam. Woods, Gilead.
362. Hippomarathrum Boissieri, Reut. Jebel Kuleib.
363. Colladonia crenata, Fenzl. Moab, Gilead.
364. anisoptera, Boiss. Haurân.
365. Apium graveolens, L. Tel-el-Hammâm.
366. Pimpinella corymbosa, Boiss. Table-land of Moab, Haurân.
367. eriocarpa. Ascent from El-Ghor to 'Ayûn Musa.
368. Synelcosciadium Carmeli, Boiss. Gilead.
369. Bifora testiculata, L. Haurân.
370. Carum elegans, Fenzl. Gilead ; Haurân, near mountains.
371. Ammi majus, L. Common throughout.
372. Visnaga, Lam. Common throughout.

373. Falcaria Rivini, Host. Moab.
374. Anthriscus nemorosa, M. B. Jebel Kuleib.
375. sylvestris, L. Súf to 'Ajlûn, in open glades in the woods.
376. lamprocarpa, Boiss. Wadi-es-Sîr.
377. Physocaulos nodosus, Tourn. Jebel Husha', Wadi-es-Sîr.
378. Prangos ferulacea, L., var. scabra, Boiss. Jebel Kuleib.
379. *melicocarpa*, Boiss., *var. Trachonitica*, Post. On the volcanic scoriæ, on the sides and at base of Tell Shihân, Lejâ.
380. Cachrys goniocarpa, Boiss. Gilead.
381. Ferula communis, L. El-Ghor, Moab.
382. *Ferulago Auranitica*, Post. Kureiyah, Haurân.
383. Exoacantha heterophylla, Lab. Moab.
384. Krubera peregrina, L. Haurân, Common on Philistine plains.
385. Ainsworthia trachycarpa, Boiss. Moab.
386. Tordylium Ægyptiacum, L. Moab, Gilead.
387. Malabaila Sekakul, Russ. Flanks of El-Ghor.
388. *Daucus Jordanicus*, Post. El-Ghor
389. Chætosciadium trichospermum, L. Mountains of Moab.
390. Daucus subsessilis, Boiss. Jebel Husha'. A plant not heretofore observed in the East.
391. Caucalis tenella, L. Mountains of Moab.
392. leptophylla, L. Haurân.
393. Torilis triradiata, Boiss. et Held. Burmah, Gilead.
394. neglecta, Roem. et Sch. Gilead.
395. nodosa, L. Gilead.
396. Turgenia latifolia, L. Gilead, Haurân.
397. Lisæa Syriaca, Boiss. Haurân.

XXXIV.—CAPRIFOLIACEÆ.

398. Lonicera Etrusca. Woods south of Es-Salt.
Lonicera mummularifolia. At northern base of cone of Jebel Kuleib.

XXXV.—RUBIACEÆ.

399. Rubia tinctorum, L. Moab, Gilead.
400. Callipeltis Cucullaria, L. Moab, Gilead.
401. Vaillantia hispida, L. Moab, Gilead.
Galium verum. Jebel Kuleib.
402. tricorne, Withb. Moab, Gilead, Haurân.
403. murale, L. Moab, Gilead.
404. Aparine, L. Moab, Gilead, Haurân.
405. spurium, L., var. Vaillantii, Gr. et Godr. Moab, Gilead.
406. nigricans, Boiss. Haurân.

407. Galium Judaicum, Boiss. Moab, Khan Hathrûrah to Jericho.
408. setaceum, Lam. Ascent from El-Ghor to Nebo. Fruiting pedicels of this variety 2 to 6 times as long as fruit.
409. coronatum, S. and Sm. Moab, Gilead, Haurân.
410. articulatum, L. Moab, Gilead, Haurân.
411. Mericarpæa vaillantioides, Boiss. Haurân.
412. Asperula arvensis, L. Moab, Gilead, Haurân.
413. Sherardia arvensis, L. Moab, Gilead, Haurân.

XXXVI.—VALERIANACEÆ.

414. Valerianella diodon, Boiss. Haurân.
415. Orientalis, Schlecht. Gilead.
416. truncata, Rchb. Gilead, Haurân.
417. coronata, Willd. Moab, Gilead.
418. vesicaria, Willd. Moab, Gilead, Haurân.
419. Kotschyi, Boiss. Haurân.
420. Boissieri, Krok. Haurân. Should be a mere variety of the last.

XXXVII.—DIPSACEÆ.

421. Cephalaria Syriaca, L. Moab, Gilead.
422. var. sessilis, D. C. Haurân.
423. Scabiosa Ucranica, L. Moab, Gilead.
424. prolifera, L. Moab, Gilead, Haurân.
425. Palestina, L. Moab, Gilead, Haurân.
426. Pterocephalus plumosus, L. Moab, Gilead, Haurân.
427. pulverulentus, Boiss. et Bl. Haurân.

XXXVIII.—COMPOSITÆ.

428. Erigeron Canadense, L. Common along roadsides.
429. Bellis perennis, L. Gilead.
430. Asteriscus aquaticus, L. Common.
431. graveolens, Forsk. Moab.
432. Pallenis spinosa, L. Moab.
433. Iphiona juniperifolia, Cass. Lower valleys of Moab.
434. Conyza Dioscoridis, Rauw. El-Ghor.
435. Phagnalon rupestrê, L. Mountains of Moab.
436. Helichrysum sanguineum, L. Jebel Husha'.
437. Filago spathulata, Presl. Haurân.
438. Germanica, L. Gilead.
439. Achillæa micrantha, M. B. Moab, Gilead.
440. Santolina, L. Moab.
441. falcata. Gilead, Haurân.

442. Anthemis montana, L. Haurân.
443. cornucopiæ, Boiss. Nebo.
444. hyalina, D. C. Haurân.
445. tinctoria, L. Haurân.
446. var. discoidea, Boiss. Gilead.
447. Cotula, L. Moab, Gilead, Haurân.
448. altissima, L. Moab.
449. Chrysanthemum Coronarium, L. Throughout.
450. segetum, L. Throughout.
451. Artemisia monosperma, Del. Moab.
452. Herba-alba, Asso. El-Ghor.
453. Senecio vernalis, W. K. Common throughout.
454. coronopifolius, Desf. El-Ghor.
455. Calendula Ægyptiaca, Desf. Common throughout.
456. Palæstina, Boiss. Flanks of El-Ghor.
457. Dipterocome pusilla, F. and M. Haurân.
458. Gundelia Tournefortii, L. Moab.
459. Echinops viscosus, D. C. Gilead.
460. Chardinia xeranthemoides, Desf. Deep valleys of Moab.
461. Atractylis cancellata, L. Shittim plain.
462. Notobasis Syriaca, L. Moab, El-Ghor.
463. Onopordon Illyricum, L. Gilead, Haurân.
464. ambiguum, Fresen. Haurân.
465. Silybum Marianum, L. Tel-el-Hammâm.
466. Amberboa crupinoides, Desf. Moab.
467. *Centaurea Trachonitica*, Post. Near Shuhba.
468. eryngioides, Lam. Wady Kelt.
469. cyanoides, Beggr. Gilead.
470. myriocephala, Sch. Gilead, Haurân.
471. Behen, L. Haurân.
472. calcitrapa, L. Haurân.
473. sp. Moab, between Ma'în and Callirrhoë.
474. pallescens, Del. Tell-el-Hammâm.
475. Carthamus sp. Moab.
476. nitidus, Boiss. Moab.
477. Carduus argentatus, L. Moab.
478. Scolymus Hispanica, L. Moab.
479. Rhaponticum pusillum, Labill. Moab.
480. Rhagadiolus stellatus, D. C. Gilead.
481. Hedypnoïs Cretica, L. Moab.
482. Hagoseris Galilea, Boiss. Haurân.
483. Crepis Hierosolymitana, Boiss. Gilead.
484. Thrincia tuberosa, L. Gilead.
485. Leontodon hispidulum, L. Moab.
486. Hypochæris, sp. Ammân.
487. Lactuca tuberosa, L. Gilead.
488. Sonchus asper, Vill. Moab.

489. Sonchus oleraceus, L. Ascent to Moab.
490. Zollikofferia mucronata, Forsk. New bridge of Jordan.
491. Scorzonera phæopappus, Boiss. Haurân.
492. papposa, D. C. Moab.
493. Jacquiniana, Koch. Haurân.
494. Tragopogon buphthalmoides, Boiss. Moab, Haurân.

XXXIX.—CAMPANULACEÆ.

495. Campanula dichotoma, L. Moab, Gilead.
496. Rapunculus, L. Gilead.
497. Specularia Speculum, L. Moab, Gilead, Haurân.
498. falcata, Ten. Gilead.

XL.—ERICACEÆ.

499. *Arbutus Andrachne L., var. serratula*, Post. Mountains of Moab and Gilead. This tree is known in Southern Palestine and east of the Jordan as *Qaikob*, which name in Lebanon is applied to the Maple, while the Arbutus is there known as *Qotlib*.

XLI.—PRIMULACEÆ.

500. Cyclamen latifolium, Sibth. and Sm. Rocks, Moab, Gilead.

XLII.—PLUMBAGINEÆ.

501. Statice Thouini, Viv. Jordan valley and flanking hills to the sea level.
502. pruinosa, L. Dead Sea and valleys above it. This species has large, 1 to 3 inches long, obovate leaves, tapering to a petiole, but they are not usually seen in herbaria. Boissier says that the leaves are *small*. There are no specimens with leaves among the many in his herbarium.
503. spicata, Willd. Jordan valleys, Damascus plain.

XLIII.—STYRACACEÆ.

504. Styrax officinale, L. Moab, Gilead.

XLIV.—OLEACEÆ.

505. Olæa Europæa, L. Moab.

XLV.—APOCYNACEÆ.

506. Vinca herbacea, W. K. Gilead.
507. Nerium Oleander, L. Moab, Gilead, Haurân.

XLVI.—ASCLEPIADACEÆ.

508. Periploca aphylla, Dec. By a canal near Tell-el-Hammâm, in the Shittim plain.
509. Calotropis procera, Willd. Shittim plain.
510. Pentatropis spiralis, Forsk. Callirrhoë.
511. Dæmia cordata, R. Br. Callirrhoë.

XLVII.—BORRAGINEÆ.

512. Trichodesma Africanum, L. Callirrhoë.
513. *Boissieri*, Post. Ruins of Kasr-el-'Abd, at 'Arak-el-Emîr.
514. Heliotropium Bovei, Boiss. Moab.
515. villosum, Willd. Moab.
516. Europæum, L. Moab.
517. Cynoglossum Nebrodense, Guss. Jebel Husha'.
518. pictum, Ait. Everywhere.
519. Trachelanthus Kurdica, Ky. Wâdy-es-Sîr, with linear calyx-lobes and pedicels twice as long as calyx. This species is probably the same as T. pereana, Paine.
520. Solenanthus amplifolius, Boiss. Jebel Kuleib, among the pumice on the northern declivity below the summit.
521. Asperugo procumbens, L. Moab, Gilead.
522. Anchusa Italica, Retz. Moab, Gilead, Haurân.
523. strigosa, Labill. Moab.
524. neglecta, Alphe D. C. Birket-Dân, Jebel-ed-Durûz.
525. Nonnea obtusifolia, Willd. Moab, Gilead.
526. melanocarpa, Sibth. et Sm. Haurân.
527. Alkanna strigosa, Boiss. 'Ayûn Mûsa.
528. *Orientalis, L., var. integrifolia*, Post. El-Kûfr at foot of Jebel Kuleib.
529. Myosotis refracta, Boiss. Jebel Kuleib.
530. hispida, Schlecht. Jebel-ed-Durûz.
531. Lithospermum arvense, L. Moab, Gilead, Haurân.
532. incrassatum, Guss. El-Kûfr.
533. Onosma sericeum, Willd. Haurân. Not to be distinguished from O. flavum, Lehm.
534. giganteum, Lam. Jebel Husha', north flank.
535. Podonosma Syriacum, Labill. Fissures of rocks, common.
536. Cerinthe major, Lam. Moab, Gilead.
537. *Echium plantagineum, L., var. puberulentum*, Post. Indument of velvety wool and spreading hairs.

XLVIII.—CONVOLULACEÆ.

538. Calystegia sepium, L. Gilead.
539. Convolvulus Dorycnium, L., var. oxysepalus, Boiss. El-Ghor, Moab.
540. hirsutus, L. Haurân.
541. althæoides, L. Ascent from El-Ghor to 'Ayûn Mûsa.
542. pilosellæfolius, Desr. At Tell-er-Ramé.
543. stachydifolius, Choisy. Moab, Haurân.
544. arvensis, L. Moab, Gilead, Haurân.
545. Scammonia, L. Gilead.
546. Cuscuta planiflora, Ten. Moab.

XLIX.—SALVADORACEÆ.

547. Salvadora Persica, Gare. In clumps about the hot springs at Tell-el-Hammâm. The leaves of this specimen are oblong-linear.

L.—SOLANACEÆ.

548. Solanum nigrum, L. Moab, Gilead, Haurân.
549. *Dulcamara*, *L.*, *var. lyratum*, Post. Lower leaves lyrate-pinnatipartite, with one pair of leaflets and one pair of lobes. Gilead.
550. coagulans, Forsk. El-Ghor.
551. Withania somnifera, L. Rocks above Callirrhoë; a variety with long peduncles.
552. Lycium Arabicum, Schw. El-Ghor, Moab.
553. Mandragora officinarum, L. Gilead, Haurân.
554. Hyoscyamus reticulatus, L. Moab, Gilead, Haurân.
555. aureus, L. Ascent from El-Ghor to 'Ayûn Mûsa.

LI.—SCROPHULARIACEÆ.

556. Verbascum ptychophyllum, Boiss. Moab, Gilead.
557. *Gileadense*, Post. Wâdi-es-Sîr.
558. pinnatum, L. Ascent from El-Ghor to 'Ayûn Mûsa.
559. *Qulebicum*, Post. Jebel Kuleib, south-western declivity of cone.
560. sp. near Es-Salt. A species only in leaf. Lower leaves oblong, a foot long, densely pannous.
561. Celsia heterophylla, Desf. Gerash, on the aqueduct bridge.
562. Linaria Ægyptiaca, L. Callirrhoë.
563. Damascena, Boiss et. Gaill. Haurân.
564. Chalepensis, L. Ascent from El-Ghor to 'Ayûn Mûsa.
565. Linaria Hælava, Forsk. Top of wall of Jerusalem, valleys about Dead Sea, El-Ghor.

566. Anarrhinum Orientale, Bth. Gilead, Jebel-ed-Durûz.
567. Scrophularia macrophylla, Boiss. In caves at 'Ayûn Mûsa.
568. Michoniana, Coss. et Kral. Below caves at 'Ayun Musa. var. tenuisecta, Boiss. Es-Salt.
569. xanthoglossa, Boiss. Moab, Gilead.
570. *Gileadensis*, Post. On the road from Sûf to 'Ajlûn Gilead.
571. variegata, M. B., var. Libanotica, Boiss. Near El-Kûfr, under Jebel Kuleib.
572. Veronica Anagallis, L. Common in wet places.
573. anagallioides, Guss. Less common than the last.
574. Orientalis, Mill., var. tenuifolia, Boiss. Mountains of Gilead.
575. Syriaca, Raem. et Sch. Common throughout.
576. Cymbalaria, Bod. Common throughout.
577. Eufragia latifolia, L. Jebel-ed-Durûz.
578. viscosa, L. Gilead.

LI.—VITICEÆ.

579. Vitex Agnus-Castus, L. Jebel-ed-Durûz.

LII.—OROBANCHACEÆ.

580. Phelipæa lavandulacea, Rchb. El-Ghor, Jebel-ed-Durûz.
581. ramosa, L. Moab, Haurân.
582. lutea, Desf. El-Ghor.
583. Orobanche speciosa, D. C. Common throughout.
584. cernua, Löfl. Sowarat-es-Saghiri.

LIII.—ACANTHACEÆ.

585. Acanthus hirsutus, Boiss. Ascent from El-Ghor to 'Ayun Musa.
586. Blepharis edulis, Forsk. On the road a few hundred yards above Callirrhoë.

LIII.—LABIATÆ.

587. *Thymus Syriacus*, Boiss, *var. Trachoniticus*, Post. On the hot rocks of lava near Brak, El-Leja.
588. Mentha sylvestris, L. Moab.
589. Origanum Maru, L. Moab.
590. Micromeria nervosa, Desf. Mountains of Moab and Gilead.
591. Juliana, L. Gilead.
592. Calamintha graveolens, M. B. Gilead, Jebel-ed-Durûz.
593. Melissa officinalis, L. Konawât.

594. Salvia pinnata, L. Jebel Husha'. Gilead.
595. acetabulosa, Vahl. Gilead, Haurân.
596. Pinardi, Boiss. Moab, Haurân.
597. spinosa, L. Haurân.
598. Syriaca, Bth. Gilead, Haurân.
599. ceratophylla, L. Haurân.
600. brachycalyx, Boiss. Moab, Gilead.
601. Hierosolymitana, Boiss. Moab, Gilead.
602. Verbenaca, L. Moab, Gilead, Haurân.
603. controversa, Ten. Moab, Gilead, Haurân.
604. Horminum, L. Moab, Gilead, Haurân.
605. Russelii, Bth. Shuhbah, at the edge of El-Leja.
606. Zizyphora capitata, L. Gilead, Haurân.
607. Nepeta marruboides, Boiss. et Held. Jebel Kulêb.
608. *Trachonitica*, Post. Among the ruins at Shuhbah.
609. Cilicica, Boiss. Moab.
610. curviflora, Boiss. Jebel Husha'.
611. cryptantha, Boiss. et Haussk. Maîn.
612. Scutellaria fruticosa, Desf. Gilead, Haurân,
613. Brunella vulgaris, L. Moab, Gilead, Haurân.
614. Stachys Arabica, Boiss. Ain Hesbân, 'Ammân.
615. pullulans, Vent. 'Ain Hesbân. 'Ammân.
616. *Libanotica*, *Bth.*, *var. eriocalyx*, Post. Suweidah to 'Atîl, Haurân
617. Cretica, Sibth. et Sm. Jebel Husha'.
618. Marrubium cuneatum, Russ. Jebel Husha', Haurân.
619. Lamium amplexicaule, L. Moab, Gilead.
620. moschatum, L. Moab, Gilead Haurân.
621. Mollucella lævis, L. Haurân.
622. Ballota undulata, Fresen. Moab, Gilead Haurân.
623. saxatilis, Sieb. Ascent from El-Ghor to 'Ayûn Mûsa.
624. nigra, L. Gilead.
625. Phlomis Nissolii, L. El-Ghor, Moab, Gilead.
626. viscosa, Poir. Moab, Gilead, Haurân.
627. *fruticosa*, *L.*, *var. leiostegia*, Post. On the road from Mâîn to Callirrhoë.
628. Herba-Venti, L. Moab, Gilead.
629. Eremostachys laciniata, L. Moab.
630. Prasium majus, L. Moab, Gilead.
631. Teucrium pruinosum, Boiss. Haurân.
632. Polium, L. Ascent from El-Ghor to 'Ayûn Mûsa.
633. *Teucrium Auraniticum*, Post. In clumps by the roadside from Bosrah to Kureiyah, Haurân.
634. Ajuga Orientalis, L. Moab, Gilead.
635. Chia, Poir, var. tridactylites, Boiss. Moab.

LIV.—PLANTAGINEÆ.

636. Plantago lanceolata, L., var. altissima, Boiss. Gilead.
637. albicans, L. 'Ayun Musa, Irbid, Haurân.
638. *amplexicaulis*, *Cav.*, *var. linearifolia*, Post. Khan Hathrûrah to Jericho.
639. Cretica, Lam. Moab.
640. ovata, Forsk. Khan Hathrûrah to Jericho.
641. *Plantago ovata*, Forsk., *var. lanata*, Post. Between Irbid and Bosrah in Haurân.

LV.—CHENOPODIACEÆ.

642. Chenopodium album, L. Common throughout.
643. murale, L. Common throughout.
644. Beta vulgaris, L., *a* typica, Boiss. Flanks of El-Ghor.
645. *b* maritima, Boiss. Suleim, Haurân.
646. Atriplex Palæstinum, Boiss. Khan Hathrûrah.
647. Alexandrinum, Boiss. Between El-Leja and Damascus.
648. leucocladum, Boiss. Callirrhoë.
649. Kochia latifolia. Fres. Callirrhoë.
650. Camphorosma Monspeliacum, L. Moab.
651. Salicornia fructicosa, L. Sowarat-el-Kebîrah.
652. Suæda fructicosa, L. Callirrhoë.
653. asphaltica, Boiss. Khan Hathrûrah to Dead Sea.
654. Atraphaxis spinosa, L. Ascent from El-Ghor to 'Ayûn Mûsa.

LVI.—POLYGONACEÆ.

655. Polygonum Bellardi, All. El-Kufr, Haurân.
656. polycnemoides, Jaub. et Sp. Kaldûn.
657. aviculare, L. Ascent from El-Ghor to 'Ayûn Mûsa.
658. Rumex conglomeratus, Murr. Wady-es-Sîr.
659. obtusifolius, L. Haurân.
660. tuberosus, L. Haurân.
661. roseus, L. Khan Hathrûrah to Jericho.
662. lacerus, Balb. Ascent from El-Ghor to 'Ayûn Mûsa.
663. Emex spinosus, L. Flanks of El-Ghor.

LVII.—ARISTOLOCHIACEÆ.

664. Aristolochia Maurorum, L. Jebel Kuleib, Es-Salt.

LVIII.—THYMELEÆ.

665. Lygia pubescens, Guss. El-Ghor.

LIX.—SANTALACEÆ.

666. Osyris alba, L. Moab, Gilead.

LX.—LORANTHACEÆ.

667. Viscum cruciatum, Sieb. Moab, Gilead.
668. Loranthus Acaciæ, Zucc. El-Ghor.

LXI.—CYNOCRAMBEÆ.

669. Cynocrambe prostrata, Gaertn. Jebel Husha'.

LXII.—EUPHORBIACEÆ.

670. Euphorbia falcata, L. Gilead.
671. var. Galilæa, Boiss. Moab.
672. aulacosperma, Boiss. 'Ajlûn.
673. arguta, Schrad. Haurân.
674. thamnoides, Boiss. 'Ayûn Mûsa, Jebel Husha'.
675. Helioscopia, L. Gilead, Haurân.
676. tinctoria, L. Plain of Damascus.
677. var. schizoceras, Boiss. Gilead.
678. Ricinus communis, L. El-Ghor.
679. Andrachne telephioides, L. El-Ghor, Gilead.
680. Mercurialis annua, L. Everywhere.

LXIII.—URTICACEÆ.

681. Celtis Australis, L. Gilead.
682. Ficus Carica, L. Moab, Gilead.
683. Urtica pilulifera, L. Common.
684. membranacea, Poir. Common.
685. Parietaria officinalis, L. Moab, Gilead.

LXIV.—JUGLANDACEÆ.

686. Juglans regia, L. Gilead.

LXV.—PLATANACEÆ.

687. Platanus Orientalis, L. Moab, Gilead.

LXVI.—CUPULIFERÆ.

688. Quercus coccifera, L. Moab, Gilead, Haurân
689. Cerris, L. Jebel Kuleib.
690. Ægilops, L. Moab, Gilead.

LXVII.—SALICACEÆ.

691. Salix fragilis, L. El-Kûfr.
692. sp. near alba, L. Tell-el-Hammâm.
693. Populus Euphratica, Oliv. El-Ghor.
694. nigra, L. Cultivated everywhere along watercourses.

LXVIII.—EPHEDRACEÆ.

695. Ephedra Alte, L. Jebel Sîâghah.
696. campylopoda, C. A. M. Ascent from El-Ghor to 'Ayûn Mûsa.

LXIX.—CONIFERÆ.

697. Pinus Halepensis, Mill. Moab, Gilead.

LXX.—ORCHIDACEÆ.

698. Cephalanthera ensifolia, Murr. Woods, Moab and Gilead.
699. Limodorum abortivum, L. Woods south of Es-Salt, Jebel Husha'.
700. Orchis sancta, L. Gilead.
701. punctulata, Stev., var. sepulchralis, Boiss. In a clearing on the road between 'Ammân and Es-Salt. The specimens found had pallid green-nerved sepals.
702. tridentata, Scop. Gilead.
703. saccata, Ten. Moab, Gilead.
704. Anatolica, Boiss. Woods south of Es-Salt.
705. Anacamptis pyramidalis, L. Between Burmah and Gerash, Gilead.
706. Ophrys apifera, Huds. Between Burmah and Gerash, Gilead.

LXXI.—IRIDACEÆ.

707. Iris Sisyrhinchium, L. Everywhere.
708. Sari, Baker. Plains of Moab.
709. Gladiolus Illyricus, var. Anatolicus, Boiss., Koch. Moab, Gilead, Haurân.
710. atroviolaceus, Boiss. Haurân.
711. Ixiolirion montanum, Labill. Moab.

LXXII.—LILACEÆ.

712. Asparagus acutifolius, L. Common throughout.
713. stipularis, Forsk. El-Ghor.
714. var. brachyclados, Boiss. El-Ghor.
715. Lownei, Baker. New bridge of Jordan. A variety with leaves spurred at base; the specimen in the Herbarium of Kew is destitute of spurs.

716. Asphodelus microcarpus, Viv. El-Ghor, Moab, Gilead.
717. fistulosus, L. El-Ghor, Moab.
718. Asphodeline lutea, L. Haurân.
719. brevicaulis, Bert. Jebel Husha', Haurân.
720. *brevicaulis, Bert., var. foliosus*, Post. Stem leafy to base of panicle. Haurân.
721. Taurica, Pall. Jebel Neba.
722. Tulipa Oculus-Solis, L. Gilead.
723. montana, Lindl. Jebel Kuleib, Haurân plain.
724. Allium Hierochuntinum, Boiss. Flanks and valley of El-Ghor, Haurân.
725. stamineum, Boiss. El-Ghor.
726. Sindjarense, Boiss. et Haussk. Sowarat-el-Kebîrah.
727. trifoliatum, Cyr. Haurân.
728. Neapolitanum, Cyr. Moab, Gilead, Haurân.
729. Schuberti, Zucc. Haurân.
730. nigrum, L. New bridge of Jordan.
731. Erdelii, Zucc. Jebel Sîâghah, Gilead, Jebel-el-Durûz.
732. Scilla hyacinthoides, L. Wady-es-Syr.
733. Urginea maritima, L. Ascent from El-Ghor to 'Ayûn Mûsa.
734. Muscari comosum, Mill. Moab, Gilead, Haurân.
735. Pinardi, Boiss. Jebel Sîâghah.
736. longipes, Boiss. Jebel Kuleib.
737. racemosum, L. Haurân.
738. Bellevalia macrobotrys, Boiss. Es-Salt, Haurân.
739. densiflora, Boiss. Merj, Damascus.
740. Ornithogalum Narbonense, L. Moab, Gilead, Haurân.
741. var. densum, Boiss. Haurân.
742. umbellatum, L. Moab, Gilead, Haurân.
743. montanum, Cyr. Gilead.
744. Fritillaria Libanotica, Boiss. Haurân.

LXXIII.—SMILACEÆ.

745. Smilax aspera, L., var. Mauretanica, Boiss. Moab.

LXXIV.—COLCHIACEÆ.

746. Colchicum Ritchii, R. Br. Shuhbah, El-Leja.

LXXV.—AROIDEÆ.

747. Arum Dioscoridis, Sibth. et Sm. Moab.
748. hygrophilum, Boiss. Gilead.
749. Helicophyllum crassipes, Boiss. Gilead.

LXXVI.—ALISMACEÆ.

750. Alisma Plantago, L. Moab, Haurân.
751. natans, L. In a pool, between 'Ajlûn and Irbid, Gilead. A plant not heretofore observed in the East.

LXXVII.—BUTOMACEÆ.

752. Butomus umbellatus, L. El-Ghor, Haurân.

LXXVIII.—TYPHACEÆ.

753. Typha latifolia, L. Ford of Jabbok, Gilead.

LXXIX.—JUNCACEÆ.

754. Juncus maritimus, L. Ascent from El-Ghor to 'Ayûn Mûsa.

LXXX.—PALMEÆ.

755. Phœnix dactylifera. Indigenous in valleys about the Dead Sea and in the Ghor.

LXXXI.—CYPERACEÆ.

756. Cyperus longus, Sieb. Moab, Gilead.
757. Scirpus Holoschœnus, L. Gilead.
758. maritimus, L. Gilead.
759. Carex divisa, Huds. Haurân.
760. stenophylla, Vahl. Moab, Gilead.
761. Mediterranea, C. B. Clarke. Haurân. A new species found also in Sicily.

LXXXII.—GRAMINEÆ.

762. Pennisetum ciliare, L. Shittim plain.
763. asperifolium, Desf. Ascent from El-Ghor to Nebo.
764. Imperata cylindrica, L. Gilead.
765. Saccharum Ægyptiacum, L. Ascent from El-Ghor to Moab.
766. Arundo Donax. Ascent to Moab.
767. Pollinia distachya, L. Gilead.
768. Andropogon foveolatus, Del. Callirrhoë.
769. annulatus, Forsk. New bridge of Jordan.
770. hirtus, L. Nebo, Moab, Gilead.
771. Phalaris minor, Retz. El-Ghor.
772. Canariensis, L. Moab.
773. nodosa, L. Haurân.

774. *Alopecurus involucratus*, Post. Kureiyah to el-Kûfr, Haurân.
775. anthoxanthoides, Boiss. Nebo.
776. agrestis, L. Jebel-ed-Durûz.
777. pratensis, L. Moab, Haurân.
778. Aristida cærulescens, Desf. Gilead, Haurân.
779. Forskahlei, Tausch. Callirrhoë.
780. Stipa Lagascæ, Raem. et Sch. Plain of Moab.
781. passiflora, Desf. Brak, El-Leja.
782. capillata, Desf. Haurân.
783. tortilis, Desf. A mischievous and annoying weed; common everywhere.
784. Piptatherum miliaceum, L. Ascent from El-Ghor to Nebo.
785. holciforme, R. and Sch. Ammân, Es-Salt.
786. Milium vernale, M. B. Moab, Gilead.
787. Polypogon Monspeliense, L. El-Ghor.
788. maritimum, Willd. New bridge of Jordan.
789. Lagurus ovatus, L. Moab.
790. Aira capillaris, Host. Base of Jebel-el-Durûz, between Kureiyah and El-Kufr.
791. Ventenata Blanchei, Boiss. Haurân, between Kureiyah and El-Kufr.
792. Avena sterilis, L. Moab, Gilead, Haurân.
793. barbata, Brot. Moab, Gilead, Haurân.
794. var. glabra. El-Ghor.
795. Arrhenatherum elatius, L., var. Palæstinum, Boiss. Moab, Gilead, Haurân.
796. Cynodon Dactylon, L. Common throughout.
797. Danthonia, ? sp. . Jebel Husha'.
798. Tetrapogon villosum, Desf. Callirrhoë.
799. Echinaria capitata, L. Nebo.
800. Lamarckia aurea, L. El-Ghor, Moab, Gilead.
801. Cynosurus callitrichus, W. Barb. Solomon's Pools, Es-Salt, Nebo.
802. elegans, Desf. Es-Salt, 'Ajlûn.
803. Kœleria phlæoides, Vill. Moab, Gilead.
804. Catabrosa aquatica, L. Haurân.
805. Melica Cupani, Guss. Haurân.
806. Dactylis glomerata, L. Everywhere.
807. Schismus Arabicus, Nees. Ghor.
808. Poa compressa, L. Es-Salt.
809. annua, L. Everywhere.
810. bulbosa, L. Everywhere.
811. Festuca elatior, L., var. pratensis, Hack. Ammân, Plains of Moab.
812. Vulpia ciliata, Pep. Haurân.
813. Catapodium loliaceum, Huds. Ascent from El-Ghor to Nebo.
814. Scleropoa Philistæa, Boiss. Plain of Sharon.
815. Bromus erectus, Huds. Jebel-ed-Durûz.
816. tectorum, L. Throughout.
817. sterilis, L. Throughout.

818. Bromus Matritensis, L. Everywhere.
819. Haussknechtii, Boiss. Jebel Kuleib.
820. macrostachys, Desf. Moab, Haurân.
821. brachystachys, Horn. New bridge of Jordan.
822. rubens, L. Everywhere.
823. scoparius, L. Everywhere.
824. Brachypodium distachyum, L. Moab, Gilead. Haurân.
825. Agropyrum junceum, Beauv. Mountains of Moab.
826. squarrosum, Roth. Haurân.
827. Secale fragile, M. B. Jebel Husha'.
828. Ægilops Aucheri, Boiss. Ascent from El-Ghor to Nebo.
829. crassa, Boiss. Ascent from El-Ghor to Nebo.
830. var. macrathera, Boiss. El-Ghor.
831. triuncialis, L. Gilead.
832. var. brachyathera, Boiss. Gilead.
833. Lolium rigidum, Gaud. Es-Salt, Haurân, El-Ghor, Jebel Husha'.
834. sp. Ascent from El-Ghor to 'Ayûn Mûsa.
835. sp. Burmah to Gerash, Gilead.
836. Hordeum bulbosum, L. Common throughout.
837. murinum, L. Common everywhere.
838. Elymus Caput-Medusæ, L. Haurân.
839. Delileanus, Schult. Gilead, Haurân.

LXXXIII.—FILICES.

840. Cheilanthes fragrans. L. Burmah, Gilead.
841. Adiantum Capillus-Veneris, L. Wet places everywhere. Very fine fronds of it are found in the cave at 'Ayûn Mûsa.
842. Ceterach officinarum, L. Gilead.

LXXXIV.—CHARACEÆ.

843. Chara, sp. Burmah.

METEOROLOGICAL OBSERVATIONS.

1881.

The numbers in column 1 of this table show the highest reading of the barometer in each month ; of these, the highest appear in the winter, and the lowest in the summer months. The maximum for the year was in January, as in the preceding year, and was 30·235 ins. In column 2, the lowest in each month are shown ; the minimum, 29·524 ins., was in February, in the preceding year it was in April ; the range of readings in the year was 0·711 inch, in the year 1880 it was 0·780 inch. The numbers

in the 3rd column show the range of readings in each month; the smallest, 0·171 inch, is in October, and the largest, 0·596 inch, in March. The numbers in the 4th column show the mean monthly pressure of the atmosphere; the greatest is in January, and the smallest in August.

The highest temperature of the air in each month is shown in column 5. The highest temperature in the year was 106° in August, but the temperature reached and exceeded 90° in every month from April to September, with the exception of July, when the maximum was 89°. The first day in the year the temperature reached 90° was on April 8th, and there were three other days in this month when the temperature was more than 90°. In May there were four days when the temperature reached and exceeded 90°; in June there were three such days; in August ten days, the highest being 106°, on the 27th; in September six days. The last day that the temperature reached 90° was on the 25th of September, therefore the temperature reached and exceeded 90° on 27 days in the year. The maximum temperature, both in October and November, was as high as 89°.

The numbers in column 6 show the lowest temperature of the air in each month; in December the lowest temperature in the year was experienced, viz., 39°, and this temperature occurred on two different nights. Therefore, on only two nights in the year was the temperature so low as 39°, while, in the preceding year, it was as low as 32°, both in January and February. The yearly range of temperature was 67°. The range of temperature in each month is shown in column 7, and these numbers vary from 29° in July and September to 51° in May.

The mean of all the highest by day, of the lowest by night, and of the average daily ranges of temperature, are shown in columns 8, 9, and 10, respectively. Of the high day temperature, the lowest was in February, 64°·8; and the highest in August, 89°·9. Of the low night temperatures, the coldest, 47°·4, took place in December, and the warmest, 70°·3, was in August. The mean daily range of temperature, as shown in column 10—the smallest was 17°·2 in February, and the largest was 24°·3 in June.

In column 11, the mean temperature of each month, as found from observations of the maximum and minimum thermometers only. The month of the lowest temperature was February, 56°·2, and that of the highest was August, 80°·1. The mean temperature for the year was 66°·7, that of the preceding year was 66°·4.

The numbers in columns 12 and 13 are the monthly means of a dry and wet bulb-thermometer, taken daily at 9 a.m., and in column 14 the monthly temperature of the dew-point at the same hour, or that of the temperature at which dew would have been deposited. The elastic force of vapour is shown in column 15, and in column 16 the water present in a cubic foot of air; in January this was as small as $3\frac{3}{4}$ grains, whilst in August it was as large as 8 grains. The numbers in column 18 show the degree of humidity, saturation being considered 100; the smallest number in this column is in April, and the largest in December. The

weight of a cubic foot of air, under its pressure, temperature, and humidity, at 9 a.m., is shown in column 19.

The most prevalent winds in January were S.E. and S., and the least prevalent were N. and N.W. In February the most prevalent was S., and the least prevalent were E. and N.W. In March the most prevalent were S.W., S.E. and S., and the least prevalent were N. and E. In April the most prevalent were S. and W., and the least N.E. and E. In May the most prevalent were N.W., W., and S.W., and the least were S.E. and S. In June the most prevalent were S.W., N.W., and W., and the least prevalent were E., S.E., and S. In July and August the most prevalent was S.W., and the least were N., E., and its compounds. In September the most prevalent was S.W., and the least E. and W. In October the most prevalent was N.W., and the least were N. and W. In November and December the most prevalent winds were S.E. and S., and the least prevalent were N., S.W., and W.

The numbers in column 29 show the mean amount of cloud at 9 a.m.; the month with the smallest amount is June, and the largest February. Of the cumulus, or fine weather cloud, there were 91 instances in the year; of these there were 18 in July and 18 in August, and 14 in September, and one only in February. Of the nimbus, or rain cloud, there were 53 instances in the year, of which 12 were in February, 11 in December, and 9 in March, 5 only from May to October. Of the cirrus, there were 59 instances in the year, of which 11 were in January, 9 in November, and 8 in February. Of the cirro-cumulus there were 16 instances in the year. Of the stratus 14 instances. Of the cirro-stratus there were 6 instances in the year. And there were 126 instances of cloudless skies.

The largest fall of rain for the month was in November, 5·09 ins.; the next in order was in December, 5·03 ins., of which 1·91 inch fell on the 21st. In December, 1880, the fall was 10·5 inches. No rain fell from April 20th to the 6th of November, making a period of 189 consecutive days without rain. The fall of rain in the year was 17·49 inches, being 11·19 inches less than in the preceding year. The number of days on which rain fell was 48, in the preceding year the number was 66.

JAMES GLAISHER.

ALTAIC CYLINDERS.

AMONG the Babylonian cylinders—amulets or seals, in the British Museum, and the Phœnician cylinders which are kept with them—there are two or three which appear to belong to the so-called "Hittite" art, because they present hieroglyphic emblems like those of Hamath. It is possible that others classed as Babylonian which present figures of the gods without hieroglyphs may also be of this class (*see* "Guide to Kouyunjik Gallery," page 136).

Mr. T. G. Pinches (one of our best Akkadian scholars) has kindly sent

me casts of three of these cylinders, which are very similar to those published by Menant and Perrot, from Aidin in Lydia, and other places in Asia Minor. With respect to such cylinders Mr. Pinches says, in the Guide above quoted (p. 126), that they appear to have been used as charms suspended to the wrist, or hung round the neck or waist. The subjects are generally connected with mythology. Another of the same class is in possession of Mr. Greville Chester.[1]

No. 1. Menant, *les Pierres Gravées* II, Fig. 111.—Two deities in the usual high cap and skin robe face each other. Between is a bull's head and a scorpion, to the left four small figures under a twisted pattern (often found on these cylinders) with two birds above with long tails. To the left again a figure in a horned cap with sceptre somewhat like those of the god at Boghaz Keui.

The bull and scorpion are the emblems of the second and eighth month (which before 2152 B.C. were the first and seventh month, on account of precession), and they therefore probably indicate spring and autumn. The twist pattern may conventionally represent waves or clouds (it resembles the Chinese sign for cloud); the swallow is the emblem of fate, both in Babylonia and in Egypt. The deity with horned headdress is possibly Ea.

No. 2. Menant, Fig. 112.—The deity with horned cap, followed by a goddess in long skin robe, and by a god with high cap bearing the winged sun on his sceptre, approaches a quadrangular enclosure of twist pattern in which are a man and woman. Her headdress is that worn by the Phœnician and Egyptian goddesses (the globe and feathers), and in her right she holds an *ankh*, or emblem of life; the man wears a tiara or turban, and raises his hand in the attitude of blessing. This may represent a legend like the Median story of the *Vara*, or "garden," in which

[1] Mr. Greville Chester's collection, which he will, no doubt, describe, is of high interest, and contains several undoubted Altaic seals. His great seal from Tarsus may be Babylonian, but is equally likely to be Altaic. It has five designs, which have been published in "Nature." On the base a standing figure presents a trident to one seated on a throne, surrounded by a twisted pattern. On one side the eagle-headed deity (Nisroch) stands before an altar, at which is seated opposite a personage holding a cup and lightning; above him is the winged sun; over the altar the trident is flanked by two luck marks, common in Phœnicia. On the second side this luck mark (which I described in 1883 and 1886) stands between two figures, one seated and holding a stag (perhaps Dara). On the third a figure seated, with tiara and cup in hand (the cup is often held by deities), grasps a bird and a rabbit (emblems of the moon); in the corner is the luck mark. On the fourth side the seated figure holds a *trisul*, or trident, and a bird perches above it. This is one of the finest seals I have seen.

Mr. Greville Chester has also a Babylonian cylinder with a representation of human sacrifice (of which type the British Museum seems only to possess a solitary example), and several Phœnician seals, one with a personal name compounded with *Yah* (the shorter form of the Hebrew Jehovah), as in names read by Mr. Pinches in cuneiform.

the first man was enclosed to protect him from the great winter (Vendidad II, 61), where he is visited by the gods Ea, Istar, and Shamash (Tammuz), as the Chaldean Noah was visited after the flood.

No. 3. Menant II, Fig. 113.—A warrior with sword and spear, with the goat's head (*Tar*) behind him. A smaller personage standing on two mountains with a small deer in front. These face to the right towards two long robed figures with an antelope between, over which is the emblem (found in Phœnicia and Egypt also) of the sun resting in the cup of the crescent moon. The meaning of this combination is perhaps illustrated by the old Chinese compound emblem (Chalmers, p. 107), sun and moon, for *ming*, "bright."

No. 4. Perrot, *Hist. de L'art*, IV, p. 771.—An elaborate design mentioned in "Altaic Hieroglyphs" (2nd edition, page 65). On the upper edge is the twist pattern, and on the lower a sort of curb pattern just like the Chinese emblem for clouds. To the right a deity, marked by a star on his head, sits on a mountain with a deer at his (or her) feet, flanked by hawk-headed cherubs (this may be *Dara* (Ea) or *Istar*). To the left a larger deity, also like the preceding with skin robe, holds a triple lituus, and has the star beneath his throne. To the left again two rampant demons tear one another, and over them are two Altaic hieroglyphs, *Ne-Gug* or *Zi-Gug*, "fighting" or "spirits fighting."[1] To the left again the centre of the design shows a Janus, or two-headed god,[2] in skin robe, extending a whip towards these demons, and a cross towards three persons in skin robes (two long, one short-skirted), who approach, facing to the right with the hand in attitude of supplication. Beyond these to the left a long robed figure which, like the three suppliants, appears to have a pig-tail,[3] faces to the left and holds what may be a snake or a corn-sheaf.

[1] A very curious objection has been taken to the idea that the Hittite texts are religious because the later Assyrian texts are historical. Those who raise this objection seem to forget how much more numerous in antiquity are religious texts than are historical, especially at the earliest period. The British Museum is full of such religious texts from Babylonia and Assyria, as well as from Egypt, and votive texts are common also in Etruria, in Greece, and in Phœnicia. The great lion, with the name and titles of Asshur Nasir Pal, in the British Museum, bears a text in 41 lines in honour of the goddess Istar; and Mr. Pinches remarks: "To such an extent was the worship of the gods carried in Babylonia that *hardly any historical records* are found upon the cylinders of the kings, the inscriptions being entirely devoted to descriptions of the restoration and building of the temples and praises of the gods." This also applies to the texts in Akkadian (dating about 2500 B.C.) found at Tell Loh. Representations, not only of gods, but of demons also, occur on the great sculptures from Nineveh in the Museum.

[2] This two-headed deity is also to be found on an Akkadian cylinder figured by Perrot.

[3] In the great sculptures representing the conquest of Elam in the British Museum several of the Elamites have what looks like a plait or pigtail behind their heads. The Altaic races overspread Elam as well as Media and Chaldea.

Above is the sun-moon emblem for "brightness," already mentioned. Last of all, to the left, a small figure dancing on a fish, supports something which seems to represent the clouds—a Hittite Atlas.

No. 5 (same work, p. 772 Fig. 384).—A four-sided seal. On three sides are figures standing erect on beasts (just as so many deities are represented to stand in India, Phœnicia, &c., &c.). The first, on a horse or ass (*Set*), with the amulet sign, which in Cypriote has the sound *Ra*, and with a tree in front. The second on a deer (*Dara*), with the same sign and two stars. The third with star and amulet on a lion (*Ma*). On the fourth side two bull-headed satyrs support the tree of life with the winged sun above. This seal is from Asia Minor.

No. 6 (same work, p. 773, Fig. 386) represents five deities and five animals under them, with various hieroglyphs clearly Altaic. The first to the right seems to be a goddess, facing the right, and holding the lituus. Her emblem is a dove. The second, also facing to the right, seems to be a goddess. She holds a flower, and stands above a lion; before her is a hieroglyph common at Jerablus, which resembles the cuneiform *Da*.[1] The third deity is male, and faces to the left. He has the wings and tail of a bird, a tiara, a cross in the left hand (on the impression), and flail in the right. His emblem before him seems to be an altar. The animal below is a hare (the moon.)[2] The fourth deity also, with bare legs, and presumably male, is possibly a Janus with two faces. He wears the horned cap of Ea or Dara, and holds a tree. In front of him is a snake, and the lucky hand, so common at Carthage and all over Asia. His animal is the deer (*Tar* or *Dara*). The fifth deity faces to the right, and holds a sceptre. He is short-skirted, ram-headed, and with wings. In front of him is a flying bird (*Zi*), and behind him what may be a fish (*Kha*). Beneath him is the long-tailed bird (*see* back, No. 1) holding a twig in its beak. In his right hand (on the impression) he seems to hold the *Ankh*, or emblem of life. These five gods perhaps answer to the five deities whose emblems accompany the portraits of Assyrian kings, answering roughly to Venus, Juno, Lunus, Neptune, and Jupiter, or perhaps to the five propitious planets excluding the malifics (Mercury and Saturn). Whatever their precise character, we see that there were in Lydia (for this cylinder comes from Aidin), five gods whose emblems were the dove, the lion, the hare, the deer, and the eagle, to which we are able to add (*see* back, No. 5) a god who stood on a horse or ass.[3] These remarks clear the way for the

[1] Behind her head seems to occur the Cypriotic emblem, *Mu*. She may, therefore, be the "Mother" goddess, always distinguished from the Venus of Asia, whose emblem was the dove.

[2] The hare represents the moon among Mongols. In China the sun and moon are called "the Golden Crow and the Jade Rabbit."

[3] The ass is a frequent divine emblem in Egypt for the sun, and in Cappadocia the ass-head occurs with the sign of deity (compare the Myth of Midas and the Median holy ass in the sea). Mr. Greville Chester has a cylinder with a lion having beside it a well-marked ass-head. At Malthai we find deities sup-

description of the three cylinders in the British Museum, casts of which have kindly been sent to me by Mr. Pinches.

No. 7 (British Museum Catalogue, p. 136, No. 52).—On the left two bull-headed genii, with the sun-moon emblem ("brightness") above.[1] It is remarkable that the sun is marked in this case with a cross or wheel, as on the Jerabis stones. Beneath is the head of a deer with branching horns. These genii are the same as on No. 5.[2] To the right a deity in a mitre with the bird (*Zi*) as his emblem. Then another similar figure facing him in the same head-dress, between them an antelope's head, and the hand raised and open. This last emblem, which is so common at

Carthage, and which, in all countries, is a sign of good luck, occurs with the bird (*Zi*) on a cylinder published by Dr. Wright from Lajard ("Culte de Mithra," pl. xxiii, fig. 1[3]). The last figure to the right is the usual naked goddess, with hands raised to her breasts, as at Karkemish, Troy, &c. Her emblem is a palm branch or plant.[4]

No. 8 (British Museum Catalogue, No. 54).—To the right, a winged god, faced by a figure which seems, perhaps, about to slay a couching bull, which has a hump like the zebu, a third figure with a sword behind, and between these a fleur-de-lis-like object, apparently a form of the amulet *Ra*. The workmanship, with drilled holes for the heads, &c., resembles that of cylinders from Asia Minor.

No. 9 belongs to a large class in the Babylonian collection, perhaps

posed to be Assyrian, standing erect on animals, among which the lion, the horse, the deer, the winged bull, and the dog are distinct. The two gods at Bavian stand erect on lions, and this attitude occurs on coins as well as at Pterid in Cappadocia.

[1] This double emblem, sun and moon, seems later to have been replaced by moon and star (as in the modern Turkish flag), which combination is found with a gazelle on coins of Mithradates, King of Pontus (120–63 B.C.), and with a sheep on coins of Antioch.

[2] On a seal from Youzghâd found by F. G. R. Edwards, Esq., these bull-headed genii flank the winged sun. Other figures of the gods occur on this seal with a tree and a deer's head.

[3] This cylinder represents the sacred tree with goats beneath and the winged sun above, flanked by two figures, with the legend apparently *Zi-An-Sa*, "spirit of heaven favour" (Wright, "Empire of Hittites," Pl. XX, Fig. 5).

[4] This plant may show that the goddess is the Babylonian *Zirbanitu*, or "bestower of seed."

representing a king, or else the sun-god with his emblem—here a winged wheel—above, and with the eagle, the bird with the twig in its mouth,

and a dog, all behind his throne. On the altar in front a deer's head is being sacrificed[1] by two suppliants. A monkey sits by the altar.[2] The lion and the moon above we have already seen to be emblems of two goddesses. In the hand of the further suppliant is the head of an ass, either a sacrifice or an emblem of the ass-deity, like the two other emblems in the same line. Clemens Alexandrinus (Cohortatio II) says the Scythians sacrificed the ass to Phœbus. Strabo (xv, II, 14) says it was sacrificed to Mars.

These nine cylinders, and the three others mentioned in the notes, appear all to be of Altaic origin, but it is remarkable how similar is the character of the Babylonian examples when compared with those from Lydia and Tarsus.

The symbolism of many described in the British Museum Catalogue is much the same. In one class we have a sort of Perseus and Andromeda group, the male figure treading on a dragon, the female naked. In another (No. 5) Martu, Son of Heaven, wears a horned cap, and is accompanied by an ibex. The Chaldean Hercules, and his friend, the bull-headed satyr, Eabani, are represented slaying the winged bull, or rending the lion. An ibex also accompanies Eabani. On a Phœnician cylinder (No. 21) El subdues the gryphon and a winged man-headed bull. The deity with the axe[3] or hammer, found at Boghaz Keui, and also in Etruria, where he was called Pupluns, occurs on a Cyprian cylinder

[1] Among the Khitai, &c., the deer was sacrificed in honour of the sky. The club held by this deity recalls the clubs of the figures at Merash, Boghaz Keui, &c., on Altaic monuments.

[2] The monkey (of which I have only observed one other instance) is sitting under the moon. Perhaps we should compare the Egyptian ape with the moon on its head. The monkey figures in Indian mythology, but it is curious to find it in Western Asia. There are well-known representations, however, of apes and monkeys brought as tribute to Assyria.

[3] This weapon recalls the *Ai Balta*, "axe" (or hammer) "of honor," used by the Tartars in Bactria. Charun, the "black god" of Etruria, often carries it. It is also carried by a figure on coins of Idrieus, King of Caria, in 353-344 B.C., of his predecessor, Mausolus (377–353 B.C.), of his successor, Pixodarus (340–335 B.C.), and on a coin of the Carian city Mylassa the hammer also appears. We have a well-known figure of a horned god (apparently Rimmon) holding the lightning in one hand and an axe in the other.

(No. 46) with the sacred tree, gryphons, and gazelles and fish. The dog, ibex, goat, and gryphons, with a ravenous animal attacking a deer, occur on another (No. 47).[1] The ibex, bird, monkey, and lion, occur on another of doubtful class (No. 48). The sun-god and moon-goddess, on another, are accompanied by fish-goats, Capricornus (No. 55), while a human sacrifice is offered them, probably for rain in the 10th (older 9th) or autumn month of Capricornus.[2]

From these notes, to which many others may be added illustrative of these mythological cylinders, we gather the following facts :—

1. The general character and subject of the cylinder charms is the same in Babylonia, in Phœnicia, and in Asia Minor and Cyprus, though the characters used in writing distinguish the different classes in some instances. The curly-toed boots are not distinctive geographically. The presence of the same Turanian race in all these districts explains the connection in art and symbolism very simply.[3]

2. In Asia Minor at least eight deities may be distinguished, viz, A. *Istar*, the naked Venus connected with the moon and the dove. B. *Nana*, or *Ma*, the mother-goddess (earth) standing on the lion. C. The lion-headed god, holding a fawn or some other animal, accompanied by the head of a rabbit or of a hare (Babylonian *Sin*)—in other cases, a god stands on a hare. D. The ram-headed god with a bird (*Zi*). E. The bull-headed or horned god, accompanied by a serpent (*Ea*, *Esmun*, or *Martu*), whose emblem seems to be the deer (*Dara*). F. The sun-god, with wings and tail of an eagle (*Tamzi*, or *Ud*). G. The eagle-headed deity (*Nisroch*). H. The deity, ass-headed, or riding on an ass[4] (*Set*, or Bacchus).

[1] A Cyprian seal, with Cypriotic text, shows a gryphon attacking a deer. Compare the common group of the lion slaying a bull. This latter appears to be mentioned by Hellanicos (whom Josephus notices, Ant. i, 4–9) as representing water and earth, though this may be a late explanation.

[2] In confirmation of this suggestion of human sacrifice in time of drought may be quoted the Phœnician legend of El sacrificing his son in time of danger, and the well-known Babylonian text, "when the weather is fine . . . on the high place the son is sacrificed."

[3] Jade, though rare, is found in use in Mesopotamia. This jade must have come from Eastern Turkestan. It is found also in Switzerland. Jade has always been much prized by the Turanians, and is so still by the Chinese. It may be to the Turanians of Italy, not to Aryans, that its introduction into Europe is to be ascribed.

[4] The ass-headed god is shown by Rawlinson in his "Ancient Monarchies," and was known to the Gnostics. In Egypt, Set, Typhon, and Osiris are symbolised by the ass. In classic mythology the ass carries Bacchus and Silenus, and Priapus is also connected with the ass. In India the ass belongs to Yama, beneath the earth. In the Zendavesta the "three-legged ass" with one horn stands in the sea (Bundahish, ch. XIX). The ass was often sacrificed to Typhon and other deities, and there is no end to the mythology of this animal.

In addition to these, the sacred tree, the scarab, the winged horse, the gryphon, the man-bull, the sphynx, the cross, the *ankh*, and the lion-headed demons with eagle's feet and long ears, all appear to be common to the Babylonians, Phœnicians, Cyprians, Hittites, and other dwellers in Chaldea, Syria, and Asia Minor, and, in most cases, these symbols occur also in Etruria. C. R. C.

CHINESE AND HITTITE.

The supposition that Chinese civilisation is connected with the old Turanian civilisation of Western Asia is by no means a recent theory. Lenormant in his "Manual" in 1868 (French edit. vol. i, p. 401), suggested that Chinese writing was derived from Akkadian hieroglyphics, and others have endeavoured to trace the connection.

The Rev. J. Edkins has written, since 1871 onwards, on the comparison of China and Babylonia, in writing, in astronomy, in the erection of observatories, in government, and in certain superstitions. In 1868, the Rev. J. Chalmers wrote on the same subject, and Professor R. K. Douglas has compared Chinese and Western myths. Mr. Hyde Clarke and Professor T. de Lacouperie have added to these comparisons, and the similarities of legend, language, religion and custom, dress and graphic ideas, must indeed strike any student of the Chinese who is acquainted with the west of Asia.

Nor is there any difficulty in accounting for such points of contact considering what is known of the early history of the Chinese.[1]

The Bak tribes (commonly called the "hundred families") came from the north-west, and entered the "flowery land," it is supposed, as early as 2300 B.C. Their language, in both grammar and words, presents numerous affinities to the Akkadian; and even in the modern Cantonese, which, according to Chalmers, preserves archaic terminations, I find about 100 words almost identical with Akkadian monosyllabic words, which agrees with Professor Max Muller's views as to Chinese.

The traditional number of hieroglyphics possessed by these immigrants from Central Asia was 540, including the secondary signs, or combinations of two, or even three, symbols (Lacouperie, "Chinese Civilisation," a lecture published 1880, p. 18). It has been said that this system was directly borrowed from Babylonia, but there are several objections to such a theory. The Chinese numerals are not like those of the cuneiform system (above three), the writing is in vertical lines, not from left to right as among Semitic writers of cuneiform; the compound emblems bear no relation to the compounds of the cuneiform.

The comparisons of Chinese and cuneiform, which I find possible in fifty or sixty cases, connect the Chinese with the very oldest Akkadian symbols which stand erect, and are written vertically for the word, and from right to left for the text. The sound, as well as the sense, is often

[1] *See* Professor T. de Lacouperie's new volume, "Languages of China before the Chinese," 1887.

the same, but since Chinese is a language of roots, not an agglutinative tongue, the comparison remains chiefly ideographic, and only serves to indicate a common (and very remotely common) origin rather than a direct literary borrowing. Some of the resemblances, such as the emblems for king, for fire, for white, for measure, for field, for twins, for storm, for bush, for wind, and for bondage, are, however, very remarkable, and can hardly be supposed due to independent origin. In all, I have noted sixty cases, comparing the Shwoh-wan with the oldest Turanian emblems of Tell Loh.

The great difficulty in such study lies in the corruption of both Chinese and cuneiform emblems through long use and graphic decay. Thus the Shwoh-wan (*see* Chalmer's translation) only dates back to about the Christian era ; and even the earlier Ku-wen writing is said not to be traceable before 900 B.C.—a time when the cuneiform was already a decadent system.

The Chinese having ceased to remember the original derivation of the majority of their emblems, introduced fanciful explanations, like those once supposed to explain the origin of square Hebrew ; and it seems that they even modified their forms according to their theories. A large proportion of emblems have thus become unrecognisable. Many, like the ape, the horse, the tortoise, the elephant, did not belong to the systems of Western Asia. Some which have retained their form yet, in recognisable outline, are, however, of great interest as showing the graphic ideas of Turanian picture writing ; and thus serving to throw light on the ideographic value of older emblems.

Comparing the commoner Altaic—or so-called Hittite—with the Chinese emblems of which the antiquity and meaning is undoubted, I find, in all, some fifty possible comparisons, some of which serve to throw light on the values of the Hittite. Thus the Hittite *Zi* or *Zo* is very like the Chinese common phonetic for air or vapour, agreeing with the value which I have proposed from the Akkadian for the Hittite. The jar which in Hittite appears to have the value *Pa* or *Be*, comparing the Cypriote *Pe* and the Akkadian *Bi*, for a liquid receptacle, is like the Chinese *fâu*, a jar, used both as a radical (or ideogram) and as a phonetic. It seems to me, indeed, that the two classes of Chinese emblems called keys and phonetics (that is, emblems used in one case for picture value, in the other for sound value) answer in each of the fifty cases to the corresponding two classes of the Hittite, viz., the larger emblems used as pictures, and the smaller attached emblems used for sound only, as phonetics. Several of the comparisons may be erroneous, but they are numerous enough to make it appear probable that the Chinese and Hittite systems sprang from a common original system, which is, of course, more closely represented by the archaic Hittite than by the Chinese, even of 2,000 years ago.[1]

[1] *See* "Structure of Chinese Characters," by John Chalmers, M.A., LL.D., 1882, a copy of which translation of the Shwoh-Wan has kindly been lent to me by Lieutenant Mills, R.E.

Yet later in entering China from the north and north-west, were the Khitai from Mongolia, whose name originates the mediæval term Cathay. The Chinese travellers of the 13th century speak of the Khitai as formerly inhabiting the country east of the Aral Sea. Mr. Howarth's interesting account of the Khitai (J. R. A. S. xiii, 2) shows that this Tartar-Mongol people were in many respects very like the Kheta of the Egyptian monuments. Some words of their language preserve almost unchanged the old Akkadian sounds. They were great charioteers and bowmen, and they adored earth, sky, sun, and moon, and the sacred mountain, as the Hunns and the Etruscans did also, and as the Hittites are shown to have done from their treaty with Rameses. Like other Mongolian and Tartar peoples, they had a rich mythology. They were able to work metals as the Akkadians did from the earliest times, and as even the Turkomans still do ; and they had cities and palaces.

The royal names and titles of the Khitai also recall those of the inhabitants of Asia Minor and Syria mentioned on the monuments. The King was called *Kha-Khan* (as among Persians and Khozars)—perhaps the real rendering of the Medic double emblem for King. *Khopi*, *Kuku* (compare the Medic Khupa and the common Turanian word Kuk, for "superior") ; *Tulai* (compare Tulia, chief of the Kue) ; *Taishi* (from a Tartar root, meaning "to fight," whence Tis Tassi and Tassak, "hero," in Akkadian), are interesting names of Khitan chiefs. The meaning of the name Khitai is unfortunately obscure.

A great deal of light may be obtained from a study of the Turkic and Mongol history in illustrating the scattered fragments of information which we possess concerning the early Turanians of Chaldea and of Syria. In the folk lore of the Kirghiz, the Kalmuks,[1] and the Mongols, many of the old myths of the cuneiform tablets and Greek mythology remain but little changed.

The remaining words of the Carian language are easily explained by comparison with Turko-Tartar or Ugrian living words.

The curious non-Aryan inscriptions of Lemnos, which serve to connect the Etruscans with the shores of Greece and of Asia Minor, present us with a language evidently of the same class. Even among the Scythian Amazons of Herodotus we recognise the roots of the Akkadian language in words of which he gives the translation, and the similarities of Egyptian fairy stories written in the 14th century B.C., when they are compared with the legends of Central Asia, are so striking as to leave very little doubt as to their Turanian derivation.

The same study also enables us to understand Phœnician antiquity

[1] Take, for instance, the legend of King Midas, who had asses' ears. It occurs in a collection of Mongol tales, and the Kirghiz relate it in connection with Lake Issyk Kul. According to Herodotus, Midas was the first Phrygian King, and the Phrygians were apparently Turanians. Mita, King of the Moschi, is mentioned in a cuneiform text. On the Hittite monument a cap with ears like that invented for Midas is represented.

much more completely, as I have attempted to show elsewhere,[1] and without doubt some of those names of Greek deities and heroes which are not explicable as either Aryan or Semitic, may be easily understood if regarded as of Pelasgic or Turanian origin. Among these I would reckon Herakles, or Hercle (Etruscan), a word not explained by any Aryan etymology, but probably the Akkadian Er-gal (mentioned on a tablet), or "great man." The name Amazon may also be supposed to mean Ama-zun, or "female warrior;" while Eshmun and Silek, the Phœnician deities, may be Es-mun, "the good deity," and Sil-ik, "the bright one."[2]

The names of chiefs of various Asia Minor tribes from 1130 to 650 B.C., which have been found on the monuments and collected by Professor Sayce, present us with many clearly Turkic words, and with names or terminations also found in the Greco-Carian inscriptions. Thus Uricci, chief of the Kue, has a name comparable with the Tartar *örögi*, or "high." Burunate, the Yazbukian, may be compared with the Usbek word *Baranta*, for a "foray" or "raid." Menuas, King of Van, recalls the mythical giant *Manias*, the ancestor of the Kirghiz. Kalabōtēs, the Carian, has a name meaning "great hero" in Tartar dialects, where the word *Batis* survives, and is, perhaps, the Akkadian *Patesi*.

These are but a few instances out of very many in which the Akkadian and the living Turko-Tartar languages give a simple explanation of local and personal names. The Carian word Kōs (Kōn), for sheep, recalls the Turkish قوزی "lamb," and قویون "sheep," which among the Kirghiz becomes *Koï;* and the Carian *τάπα* for a rock is clearly the Turkish تپه and the Turkoman *Tapa*, a well-known word for a hill. I believe that every known Carian word can be so explained, and the Carians are connected with the Hittites (by their syllabary) and with the Etruscans, according to classic tradition. The explanation of local names in Asia Minor occurring in Greek literature is equally satisfactory when comparison is made with the common geographical names of Central Asia. Thus, the termination *Der*, or *Dar*, in river names, is evidently illustrated by the Turkish دره "valley," and the Central Asian *Daria*, for "river." The importance of a study of Altaic languages for the elucidation of the antiquities of West Asia, Greece, and Italy, as well as of Egypt, can hardly be overstated. C. R. C.

[1] "Archæological Review," April, 1888.

[2] The name, Centaur (or Gandharva, according to Kuhn's comparison), has no good Aryan explanation. As a Turanian (Ugric) word it would mean "man-beast" (Gan-töra). The word Gorgon in like manner comes from a root meaning "terror."

ERRATUM.

In *Quarterly Statement*, July, 1888, p. 163, I see the words "The beech is found all over the north of Asia." The word *Minor* is omitted by error. The beech grows on Mount Parnassus and in the Caucasus. C. R. C.

"THE SPEECH OF LYCAONIA."

(Acts xiv, 11).

It is generally supposed that the language of Lycaonia may have been one of the old dialects of Asia Minor, akin to those of the Non-Aryans. For this reason it is interesting to consider the few words of Carian, Lydian, Phrygian, Cilician, and other Asia Minor dialects preserved for us in classic authors. Lycaonia lay close to Cilicia, west of Cappadocia, east of Phrygia, Caria, and Lydia.

The following are Carian words (*see* "Trans. Bib. Arch. Soc.," ix, 1).

1. *Ala*, a horse. Compare Hungarian *lo*, "horse," Chinese *lu*, "ass," Turko-Tartar *at*, "horse." The *t* and *l* are often interchanged in Altaic speech.

2. *Banda*, "victory." Compare *Banda* in the Malamir texts, where it seems to mean "strong."

3. *Glous*, "robber." The root *Kulu* in Mongolian (Buriat) means "to steal;" the common personal ending in *s* is here added.

4. *Kakkabe*, "a horse's head." The second part may be compared with the Esthonian *hobu* and Ostiak *kopta*, "horse," the first is perhaps *Ka*, "face" (as in Akkadian), or *Kak*, "top." Compare *sak*, "head," "top" in Akkadian and in Ugric speech.

5. *Kōs*, "sheep." Turkish *Kozi*, "lamb," Mongol *Khosa*, "ram," Kirghiz *Koi*, "sheep."

6. *Taba*, "rock." Zirianian *tüp*, "rock," Turkic *tapa*, a "hillock."

7. *Soua*, "tomb." Probably the Etruscan *Suthi*, "tomb," as suggested by Dr. Isaac Taylor.

8. *Tumnia*, "rod." Probably the Ugric root *tumb*, to "strike."

9. *Toussuloi*, "dwarfs." The latter part is perhaps the Akkadian *lu*, "man," Mongol *ulut*, "mankind," or "men;" *tus* appears, perhaps, in the Tartar *tusuk*, "low." The word has, however, been compared by Ellis with the Ossetic *tyusul*, Armenian *doyzn*, "little." That it is to be divided is shown by the next.

10. *Kattouza*, a Thracian town of dwarfs (Prof. Sayce). Kat is the Medic *Kat*, "place," from a root which is common to Aryan and Turanian speech, meaning a house or shelter; *Touz* is "short," as above.

Lydian Words.

Many words given as Lydian are Aryan, and throughout Asia Minor a similar mixture of vocabularies exists—as in Armenian and Georgian.

1. *Attalos*, "cessation." Compare the Akkadian *Tillas*, "complete," from the root *Täl*, "full," which occurs in Ugric speech.

2. *Kandaules*, said to mean "dog choker"—perhaps from the old savage sacrifice of tearing a dog. Perhaps we should compare the Chinese *Chuan* for "dog," and the Tartar root *Tol*, "to twist."

3. *Lailas*, a "tyrant." Compare the Akkadian *Lala*, "ruler," Hittite *Lel*, Hunnic *Luli*, "chief."

4. *Sardin*, "year." Compare the Mongol *Zil*, Turkish *Sal*, "year," Medic *Sarak*, "time," Buriat *Sara*, "month."

5. *Targanon*, "branch." The nearest seems to be the Esthonian *türkan*, "to sprout forth."

6. *Mōos*, "the earth." In Vogul *ma* is "earth." Compare also the Sanskrit *Mahi*, the Akkadian *Ma*, Finnic *Maa*, Zirianian *Mu* (Hittite *Me*).

Phrygian Words.[1]

1. *Papa*, said to be a Phrygian god (Hippolytus), evidently means "father." Turkish *baba*, Mongol *babe*, Akkadian *Abba*.

2. *Ate*, *Atys*, Phrygian deity. Turkish *At*, Tartar *ata*, Medic and Akkadian *adda*, "father," "elder."

3. *Bekos*, "bread"—has been compared with *φαγειν*, "to eat."

Scythian Words.

These I find in Herodotus, who translates them.

1. *Aior*, "men." Compare the Akkadian *eri*, *uru*, "man," Turko-Tartar *er*, Mongol (Buriat) *ere*.

2. *Pata*, "slaying." Akkadian *Bat*, "slay." This is also an Aryan root *pat*.[2]

3. *Papæus*, Jupiter. Compare the Phrygian Papa.

4. *Aschy*, a drink. Compare the Tartar strong liquor called *Shauju*.

5. *Apia*, "the earth." Compare the Georgian *obai*, "country," and the Tarta *ab*, *ob*, for an abode in every sense. Akkadian *ab*, "abode."

6. *Oetosyrus*, Apollo. Compare the Mongol *ud*, Akkadian *ud*, Turkish *udun* for "day;" and Akkadian *Sir*, Mongol *Sar*, "light." Apollo being the Sun God, or "day-light."

We have here more than two dozen words referable to Turanian languages nearer to the Ugric on the west, in Lydia and Caria, and to the Tartar further east. Many more might be added from the ancient nomenclature of Asia Minor, but these may serve to show that in St. Paul's time the country was occupied by the same populations still found in Turkey and in Anatolia.

C. R. Conder.

[1] The Cilician words are mainly names of deities, including *Ma* ("the earth"?), whose high priest was called the Abakles, probably *Aba Kal-s*, "great priest." Compare the Buriat *Bo*, "priest." Akkadian *Aba*, rendered a "judge," Medic *Ibba*, "to judge," and perhaps the Malamir *Bukhu*, "priest" (Tartar *baksi*), while *Kal* (Akkadian *Gal*) is a common word for "great."

[2] The Scythians called the Amazons *Aiorpata*, or "men slayers."

ON COMPARISONS OF HIEROGLYPHICS.

The idea of comparing the emblems of the four ancient hieroglyphic systems is not a new one. I endeavoured in 1883 to compare Hittite and Egyptian. In 1880 Prof. T. de Lacouperie compared a few Chinese and Cuneiform emblems, and has added other such comparisons in 1888. An excellent paper on the subject was published by the Royal Asiatic Society in 1887, written by Mr. G. Bertin.

The accompanying figures represent many new results in detail, and, as far as I know, the Hittite and Chinese have never been compared before.

Whether these four systems developed from one original system of rude picture-writing, or whether—as some urge—they are independent, it is still useful to compare them, especially as we may thus obtain meanings for Hittite signs. But until it is proved that the grammatical signs (pronouns, particles, &c.) are the same in two systems, it cannot be said that the connection is other than remote. I find on studying the systems in detail that there was no very close connection. Neither of the four systems can be said to be borrowed from the other. They are perhaps radiating developments from one centre. The Hittite seems to be the oldest, for several reasons: 1st, because it is less developed, having no included emblems, and few signs; 2nd, because the forms are less conventionalised; 3rd, because it has apparently no determinatives.

Plate I.

The Cuneiform emblems (second columns) are taken from Amiaud's decipherment of the Akkadian texts at Tell Lo (*circa* 2500 B.C.). The Hittite sounds are obtained from Cypriote as already published.

No. 1. Hittite *An*, Cuneiform *An*, "God"—a star (*see* No. 31, Plate II).

No. 2. Cuneiform *Si*, eye. Hittite probably *Is*, *si*, or *an* (*see* No. 2, Plate II, No. 4, Plate III, No. 1, Plate IV).

No. 3. Hittite *me*, Cuneiform plural sign (*see* No. 29, Plate II, No. 36, Plate IV).

No. 4. Hittite *Kon*, Cuneiform *Nun* "prince" (*see* No. 2, Plate IV).

No. 5. Cuneiform *En*, "Lord" (*see* No. 14, Plate IV).

No. 6. Cuneiform *Ma*, "ship" (*see* No. 3, Plate III).

No. 7. Cuneiform *Bara*, "altar" (*see* No. 19, Plate III).

No. 8. Hittite probably *Ke*. Cuneiform *ik*, "open" (*see* No. 8, Plate III, and No. 18, Plate IV).

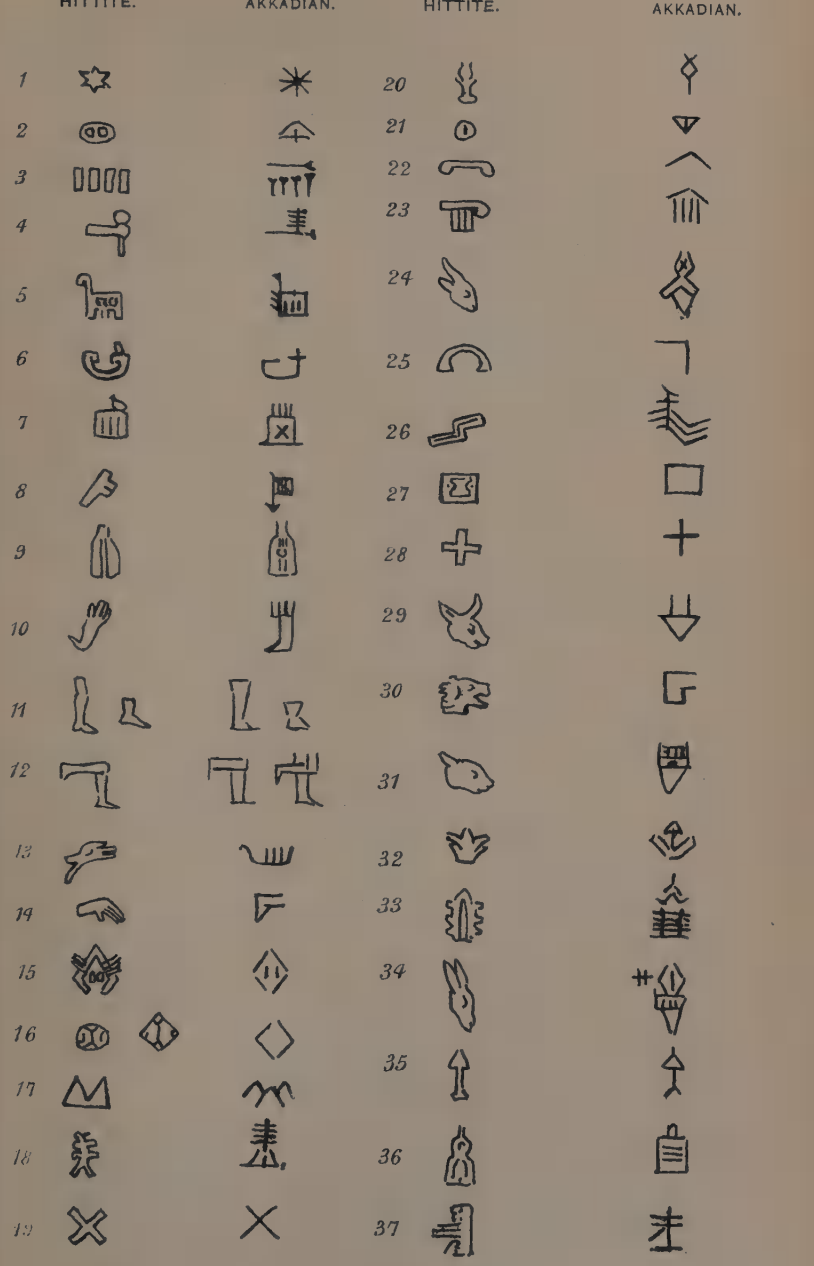
No. 9. Hittite *Ku*, Cuneiform *Aka*, "high," the royal cap.

No. 10. Hittite perhaps *Te*. Cuneiform *Da*, the hand raised (*see* No. 18, Plate II).

No. 11. Cuneiform *du*, "go," "become" (*see* No. 15, Plate II).

No. 12. Cuneiform *du*, "go" (*see* No. 15, Plate II, No. 30, Plate III).

No. 13. Cuneiform *su*, "hand" (*see* No. 1, Plate II, No. 7, Plate III).



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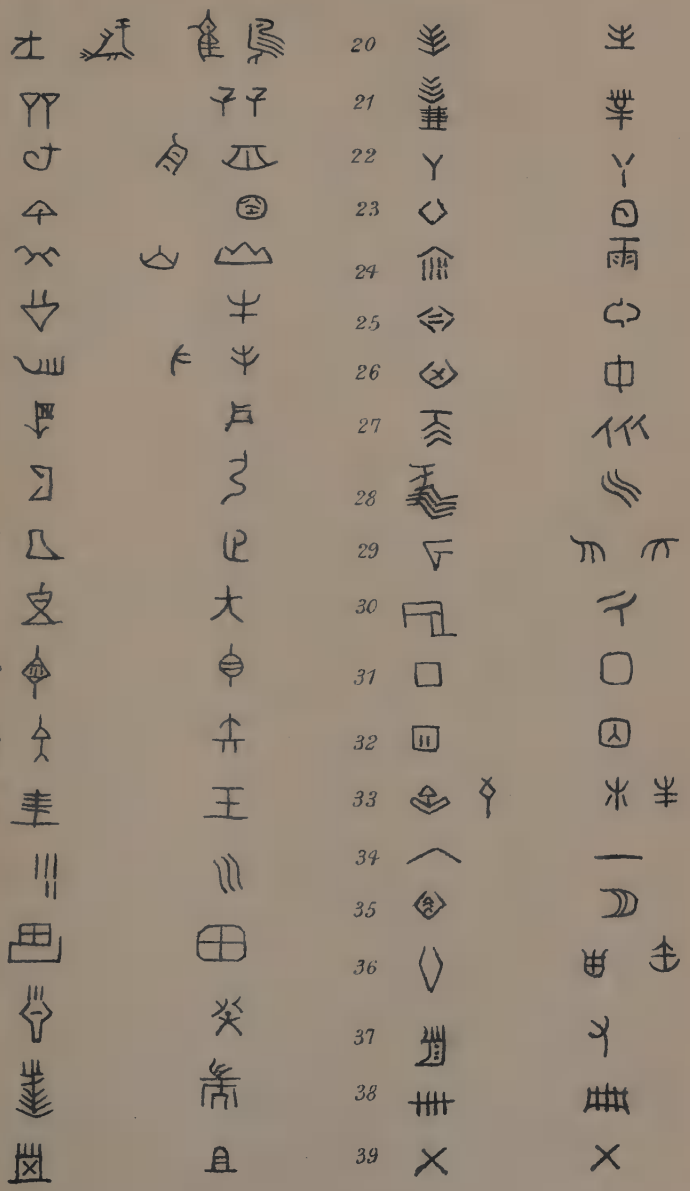

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No. 14. Hittite probably *To*, Cuneiform *Tuk* and *du*, "have" (*see* No. 5, Plate II, No. 29, Plate III).

No. 15. Hittite *Dim*, Cuneiform *Dim*.

No. 16. Hittite, probably *Tam*, Cuneiform *Tam* or *ud*, "the day," or "sun" (*see* No. 24, Plate II, No. 23, Plate III).

No. 17. Hittite *Me*, "country," Cuneiform *Mat* and *Kur*, "country" (*see* No. 6, Plate II, No. 5, Plate III).

No. 18. Cuneiform *Tur*, "abide," "rest" (*see* No. 28, Plate II).

No. 19. Hittite *No* or *Mu*, Cuneiform *bab*, "oppose" (*see* No. 26, Plate II, No. 39, Plate III).

No. 20. Hittite, probably *Pu*, Cuneiform *Pu*, "long," apparently a flower-bud (*see* No. 13, Plate IV).

No. 21. Hittite *Mo*, Cuneiform *Muk*, "female" (*see* No. 33, Plate II).

No. 22. Hittite *O* or *Pa*, Cuneiform *U*, "superior," supposed to represent the firmament (*see* No. 16, Plate II, No. 34, Plate III).

No. 23. Hittite *Re*, Cuneiform *Mi*, "dark," supposed to represent rain (*see* No. 17, Plate II, No. 24, Plate III).

No. 24. Hittite *Tar*, *Tarka*, Cuneiform *Lul*, "chief" (also "stag" in Akkadian). *Dara*, and probably *Turakhu*, is another Akkadian word for deer. *Tarka* is Turkic and Mongol for "chief" (*see* No. 23, Plate II). The stag's head stands for Tarka "chief" on the Hittite bilingual.

No. 25. Hittite *Lu*, *Le*, Cuneiform *Lū*, "yoke."

No. 26. Hittite *Ze*, *Zo*, Cuneiform *Zi*, "spirit" (*see* No. 28, Plate III).

No. 27. Cuneiform *Kar*, "enclosure" (*see* No. 11, Plate II, No. 31, Plate III).

No. 28. Hittite, apparently *lo*, Cuneiform *bar*.

No. 29. Hittite *Le*, Cuneiform *Le* or *Lu*, "bull." The bull's head occurs also in Egyptian inscriptions.

No. 30. Cuneiform *Lig*, "dog." The Hittite may be a dog or a lion.

No. 31. Cuneiform *Lu*, "sheep."

No. 32. Hittite *Te*, Cuneiform *Pa*– apparently "flower" or "herb" (*see* No. 10, Plate II, No. 32, Plate III, No. 8, Plate IV).

No. 33. Cuneiform *Sar*, apparently the sacred tree, commonly shown on the monuments.

No. 34. Cuneiform determinative for "beast."

No. 35. Hittite *Ti*, Cuneiform *Ti*.

No. 36. Cuneiform *Dib*, "tablet."

No. 37. Hittite *Ri* (and *Bil*), Cuneiform *Ri*. In both systems it occurs as the name of a deity.

Plate II.

The Egyptian emblems (in the second columns) are taken from Pierret's "Vocabulary," and in many cases occur also in Renouf's Grammar. For the most part they are used simply as determinatives, or pictures showing the *class* of the word they accompany, and as such are very common.

No. 30. The Hittite emblem occurs as the name of a deity. The Egyptian stands for "day" (Pierret, "Vocab.," p. 152).

No. 31. Egyptian emblem for "star" or "god," &c. (*see* back, No. 1, Plate I).

No. 32. The Egyptian emblem of life. The Hittite *Ra*, apparently meaning "power." It is also suspended to the necklet of Assyrian kings.

No. 33. The Egyptian emblem accompanies the word *Mat*, "mother" (*see* back, No. 21, Plate I).

No. 34. Hittite, probably *Ti*. Egyptian has the sound *aa*, and is comparatively rare.

No. 35. The Egyptian determinative for pyramid, tomb, monument, &c. (Pierret.)

This comparison is purely ideographic, as Egyptian and Hittite are not of the same group of languages; but out of about 70 common determinatives used in Egyptian 33 have here been compared with Hittite emblems. Other emblems, such as the bull's head, the eagle, the lion, the serpent, the corn ear, the altar, &c., might be added, but are less interesting.

Plate III.

The cuneiform to the left is taken, as before, from the Tell Lo monuments. The Chinese is copied from the ancient *Seal* character, which occurs on monuments in 827–782 B.C. (*see* J. R. A. S., North China Branch, 1874, p. 133), and is given by Dr. Chalmers ("Structure of Chinese Characters," 1882) with the Cantonese sounds, representing one of the oldest Chinese dialects ("Eitel Cantonese Dict.," 1877, p. xii). Of the 39 emblems compared, the first 10 are given by Prof. T. de Lacouperie in his recent paper on this comparison (1888). He gives about 30 in all, but I have omitted those which seem to me doubtful on various accounts, and the remaining 29 are, as far as I know, new suggestions.

No. 1. Cuneiform *Khu* determinative for "bird," and *Nam*, for "swallow" (as the latter is explained by Mr. Houghton). Chinese *chiu* for a short-tailed bird, and *tiu* for a long-tailed bird (Chalmers). Prof. de Lacouperie compares *Khu* with *tiu*.

No. 2. Cuneiform *tur*, "son." Chinese *ma*, "twins." Prof. de Lacouperie compares *Tur* with *tok*, "son," which has only one, instead of two emblems.

No. 3. Cuneiform *Ma*, "ship." Chinese *Chau*, "a boat." The second Chinese emblem is not in Chalmers.

No. 4. Cuneiform *Si*, "eye." Chinese *muk*, "eye."

No. 5. Cuneiform *Kur*, "mountains." Chinese *shan*, "mountains."

No. 6. Cuneiform *Gut* (and *lu*) "bull." Chinese *ngo*, "bull."

No. 7. Cuneiform *Su*, "hand." Chinese *tso*, "left hand" (Chalmers, No. 37), *shau* or *seu*, "the hands" (No. 113). Prof. de Lacouperie gives the second.

No. 8. Cuneiform *Ik*, "open." Chinese *hu*, "door."

No. 9. Cuneiform *Ban*, "bow." Chinese *kung*, "bow."

No. 10. Cuneiform *du*, "go." Chinese *to* (or *tsuuk*), "foot."

The additions which I propose are—

No. 11. Cuneiform *us*, "man." Chinese *tai*. This is purely a pictorial comparison.

No. 12. Cuneiform *zir*, "light." Chinese *pak*, "white."

No. 13. Cuneiform *ti*, Chinese *chih*, "arrow" (*see* No. 22, Plate IV).

No. 14. Cuneiform *nun*, "prince." Chinese *wong*, "king." Compare the Akkadian *uwun*, "prince."

No. 15. Cuneiform *i*, "pure," representing, perhaps, rain. Chinese *chun*, "stream."

No. 16. Cuneiform *Ra*, "irrigate"—a field and water channel. Chinese *tin*, "a field." The relation, like the preceding, is purely pictorial.

No. 17. Cuneiform *Ne*, "fire." Chinese *im* (and *yen*) "flame."

No. 18. Cuneiform *ga*, "staff," apparently a reed. Chinese *tün*, a "young plant."

No. 19. Cuneiform *bar*, "altar." Chinese *tsü* "altar."

No. 20. Cuneiform *sana* and *se*, "corn." Chinese *shang*, "growth."

No. 21. Cuneiform *tir*, "jungle." Chinese *chok*, "bush."

No. 22. Cuneiform *tar*, "divide." Chinese *a*, "forked."

No. 23. Cuneiform *ud*, "sun." Chinese *yat*, "sun." (N.B. Mongol *ud*, "day.")

No. 24. Cuneiform *mi*, "dark." Chinese *yü*, "rain."

No. 25. Cuneiform *suk*, "baggage." Chinese *pāu*, "bundle."

No. 26. Cuneiform *sa*, "middle." Chinese *chung*, "centre."

No. 27. Cuneiform emblem of plural. Chinese *yam*, "many."

No. 28. Cuneiform *Zi*, "spirit," "breath." Chinese *hi* (or *chi*), "vapour," "breath."

No. 29. Cuneiform *tu*, "have." Chinese *cheung*, "take hold," and *chau*, "clutch."

No. 30. Cuneiform *du*, "go." Chinese *chik*, "step."

No. 31. Cuneiform *Kar*, "enclosure." Chinese *wai*, "enclosure," or "round."

No. 32. Cuneiform *Dur*, "bondage." Chinese *taau*, "prisoner."

No. 33. Cuneiform *Pa* (? "flower"), *Pu* (? "bud"). Chinese *put*, "vegetation;" *fung*, "vegetation."

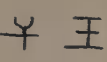
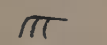
No. 34. Cuneiform *U*, "above." Chinese emblem of heaven and all superior things.

No. 35. Cuneiform *idu*, "month." Chinese *üt*, "month." The words are alike, but the emblems have no resemblance.

No. 36. Cuneiform *Khi* and *Sar*, "a measure," perhaps a vase. Chinese *chze*, "vase," and *fau*, an "earthen jar" (*see* No. 17, Plate IV).

No. 37. Cuneiform *a*, "hand." Chinese *yau*, "right hand." The sounds are somewhat alike.

No. 38. Cuneiform *As*, a "curse" or "charm;" supposed to mean

	HITTITE.	CHINESE.		HITTITE.	CHINESE.
1			19		
2			20		
3			21		
4			23		
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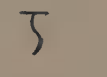
6			25		
7			27		
8			28		
9			29		
10			30		
11			31		
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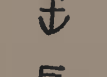
14			34		
15			35		
16			36		
17			37		
18			38		
			39		

Harrison & Sons, Lith., S. Martins Lane, W.C.

something "bound." Chinese *chak*, representing a "bundle of documents."

No. 39. Cuneiform *bab*, "opposite." Chinese *ng*, used with words for "crossing" and "disaster." (Compare the use of this emblem in Egypt, No. 26, Plate II.)

A few of these comparisons are sufficiently remarkable, though many are only pictorial. The coincidence of sound is only found in a very few cases. The emblems are all common ones in the two systems, but it must not be forgotten that there are many important emblems in the two systems which have no connection, and that the compounds and numerals differ entirely. The connection is remote, and is with the earliest Akkadian emblems, which all stand upright in the line.

Plate IV.

This comparison of 37 emblems is new, and for the most part it results from the facts gathered in comparing the known systems as given in the preceding tables.

No. 1. Hittite *Si*, *Is*, or *An*, Chinese *muk*, "eye."

No. 2. Hittite *Gon*, Chinese *Kon* and Chinese *wong*, "prince."

No. 3. Hittite *To*, Chinese *chau*, "clutch.

No. 4. Hittite *Se*, Chinese *tso*, "hand."

No. 5. Hittite, perhaps *Te*, Chinese *kwang*, "the arm."

No. 6. Hittite, perhaps "go," "run," Chinese *chik*, "stride."

No. 7. Hittite *Me*, "country." Chinese *shan*, "mountains."

No. 8. Hittite *Te*, Chinese *chit*, "sprout."

No. 9. Hittite *Gu* and *Vo*, Chinese *hau*, "speech."

No. 10. Hittite only once known (J. iii, last line), where the sound is unknown; presents a head with two small arms. Chinese *tsze*, "small," "child," used phonetically and also radically (Chalmers, p. 76).

No. 11. Hittite *U* or *pa*, Chinese emblem of heaven.

No. 12. Hittite *Ze* or *Zo*, Chinese *hi*, "breath."

No. 13. Hittite *pu*, Chinese *put*, "vegetation."

No. 14. Hittite, probably *En* (Khitai *Hain*), "throne," or "lord." Chinese *iin*. Said, however, to mean a "rolling thing."

No. 15. Chinese *tsap*, "collection," apparently "mound."

No. 16. Hittite, probably *Zi* or *Uz*, Chinese *tiu*, "bird."

No. 17. Hittite *Pe*,[1] used phonetically. Chinese *fau*, also used phonetically as well as radically.

No. 18. Hittite, probably *Ke*, Chinese *hu*, "door," a key.

No. 19. Hittite *a*, "water," used phonetically. Chinese *yau*, "jar," used phonetically.

No. 20. Hittite *Ne*, "male," used phonetically. Chinese *lik*, "strength," used phonetically.

[1] Appears in the combination *Sag-pe*, "charm" (J. iii). *Pa*, *Ba*, in Akkadian, *Boi* in Tartar and Mongol, for "incantation." *Sag-ba* means, apparently, "chief charm."

No. 21. Hittite, perhaps *Pi*, Chinese *pat*, used for "division."

No. 22. Hittite *ti*, used phonetically. Chinese *ting*, an important phonetic, and *chi*, "arrow."

No. 23. Hittite "flame" (*gi* ?), Chinese *chii*, "flame."

No. 24. Chinese *tu*, "rabbit," the emblem of the moon. In Hittite it is the name of a deity.

No. 25. Chinese *put*, "spread," "trample," used for "send."

No. 26. Chinese *ma*, "twins. (Compare the Egyptian emblem for "twins," No. 19, Plate II.)

No. 27. Chinese *muk*, "tree," is not unlike the Cuneiform *mu*. The Hittite appears to be a fruit tree such as is commonly shown on engraved gems.

No. 28. Hittite *Re*, Chinese *Yii*, "rain" (*see* No. 23, Plate I ; No. 17, Plate II ; No. 24, Plate III).

No. 29. Bull in each system.

No. 30. Chinese emblem for "contrary" (*see* No. 19, Plate I ; No. 26, Plate II ; No. 39, Plate III).

No. 31. Hittite *Pa*, Chinese *fung*, "vegetation."

No. 32. Chinese *tu*, "knife," common as a phonetic and also as a radical.

No. 33. Hittite, probably "go," Chinese "foot" (*see* No. 11, Plate I ; No. 10, Plate III).

No. 34. See what is said of No. 38, Plate III.

No. 35. Hittite, probably the sun, as is the Chinese.

No. 36. Hittite plural, Chinese "many" (*see* No. 3, Plate I ; No. 29, Plate II).

No. 37. Chinese *fai*, "viper."

These curious comparisons give more instances of similarity of sound than we get in Plate III, but none of the Hittite "weak roots" seem to be represented, and the connection is evidently somewhat remote. In the cases in which an emblem can be traced with the same ideographic meaning in Egyptian, in Cuneiform, and in Chinese it is only natural to suppose that it may have been used in Hittite with the same idea. This is confirmed in such a case as to "have," "take," "touch" by the sound obtainable for the Hittite from the Cypriote.

Thus I think we may conclude[1] that in Hittite, 1, star (*an*), means "God ;" 2, four strokes (*me*), "plural ;" 3, throne (*en*), "majesty ;" 4, foot (*du* ?), "go ;" 5, hand open (*se*), "favour;" 6, hand grasping (*to*), "have," "take ;" 7, saltire (*no* or *mu*), "opposition ;" 8, firmament (*u*), "that, above ;" 9, zigzag (*zo*), "breath," "wind," "spirit ;" 10, hand with sceptre (*gon*), "rule ;" 11, hand to mouth (*En*), "saying ;" 12, hand with stick

[1] Many of these values I obtained already in 1883 by comparing Egyptian and Hittite (*see Quarterly Statement*). Shortly afterwards Wright's "Empire of the Hittites" was published, and in this Prof. Sayce gives the following values : foot, "go ;" hand grasping, "take ;" firmament, "superiority ;" hand to mouth, "speech." He also first recognised the deer' head for chief, and the emblem for country.

(*ta*), "beat," "cause," or "power;" 13, rain (*re*), "flow," perhaps phonetic; 14, two faces opposed, "twins;" 15, deer's head (*tarka*), "chief;" 16, jar (*pe*), probably phonetic; 17, hare or rabbit, probably the moon; 18, water pot (*a*), "water," and used phonetically; 19, two feet opposed, possibly "send;" 20, a bundle, or scroll, perhaps "charm." These conclusions in many cases seem independently established by other considerations (see my previous paper on the "Hittite Language"), but we obtain several valuable hints by observing the signification of similar emblems in the other systems, and there is at least a possibility that they all really grew out of one primitive picture system which was invented by the Turanians in Asia. Among the most certain Hittite signs we may now enumerate those for "god," "country," "sun," "king," "female," "male," "bull," "lion," "chief" (*Tarka*), "sheep," "tablet," "flame," "have," "go," "house," "spirit," "water," "beat," "grow," "ship," "head," "flow," "majesty," "moon," "life," "power," "word," "tree," "twin," "snake," with the personal pronouns, case endings, plural, verbal ending (*mak*), adjective ending, and negative—as mentioned in my previous paper ("Hittite Language"). The system is ideographic with phonetic additions—or agglutinated particles—but apparently with very few, if any, determinatives, and the signs enumerated above as explicable amount to 60 in all out of 120, including all those most commonly found, the sound being known in 40 cases.

C. R. C.

KIRJATH JEARIM.

By an oversight, which I fear is my fault, on page 113 of the "Names and Places," the claim of the Rev. A. Henderson to the identification of Kirjath Jearim at *'Erma* has been left unnoticed. In "Tent Work in Palestine" I proposed Soba, but Mr. Henderson convinced me that the border of Benjamin must have passed far south of the points then supposed to have been long since fixed. In 1881 I revisited 'Erma to ascertain the character of the site, and found (as noted in the Memoirs) that Mr. Henderson's view agreed well with local indications. A reference should be made in future editions to his papers, *Quarterly Statement*, January, 1878, p. 19, October, 1878, pp. 196–8.

C. R. Conder.

THE CONDUIT NEAR THE POOL OF BETHESDA.

Herr Schick, in his account of the Pool of Bethesda, describes the conduit lately discovered on the north of the Birket Israel; he says it is "in some places covered with thick flagging stones, in others with a kind of arch, consisting only of two stones placed in a slanting position one

against the other." This I take to be a very old form of an arch, if that term can be applied to it. The Queen's Chamber, in the great pyramid, is roofed with large stones placed exactly in this position, and above the lintels of the King's Chamber is a covering of the same kind. The entrance to the pyramid, although covered with flat stones, is protected by others above placed in the slanting position described by Herr Schick. In Stuart's "Athens" there is a representation of an old arch at Delos, which is similar. When I visited Solomon's Pools near Bethlehem, I was much interested in finding a rock-cut conduit, near to what is called the "Sealed Fountain," which was roofed in this manner. The entrance to this conduit was roofed with an arch, which I supposed was modern in comparison with the more primitive construction of slanting stones. Sir Charles Warren has pointed out from the Talmud that one of the gates of the Temple—the gate Tadi—was formed in this manner—"all the gates had lintels except Tadi; there two stones inclined one upon another."

Rock-cut Channel, and Stone-roofed Conduit Solomons Pools W. Simpson March 1864.

It is impossible to assume any definite age from this peculiar form, but we may accept it as an indication of at least some antiquity; if even an approximate date could be formed, it might be of considerable value in some of the archæological questions connected with Jerusalem. With this is a reproduction of my sketch of the Rock-cut Conduit at Solomon's Pools.

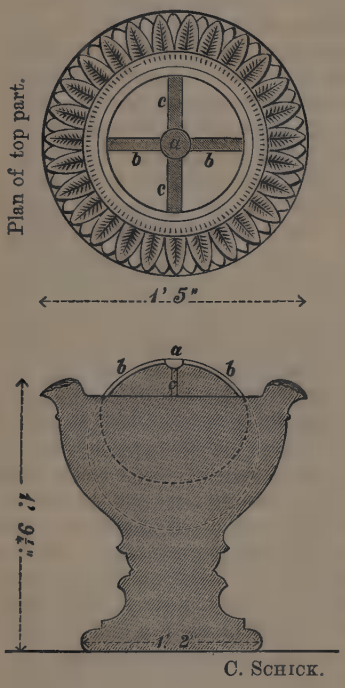
WILLIAM SIMPSON.

THE MIDDLE OF THE WORLD, IN THE HOLY SEPULCHRE.

HERR SCHICK has sent home very careful drawings of the particular object which marks, in the Greek Church of the Holy Sepulchre, the Middle of the World, or, as it is at times called, the Centre of the Earth. It stands on the mosaic floor under the dome of the Greek Church, a few paces to the east of the Holy Sepulchre, and is formed now of a vase, 1 foot 9¼ inches high, with a stone ball placed on the top; this stone is round on the top, with stripes of another kind of stone inserted to mark the cardinal points.

Herr Schick describes the vase, or "cup," as he calls it, as being "of the reddish native Jerusalem stone; the ball is rather of a more white kind, and the stripes *a a b*, with the [pole] or small ball in centre, is of black stone."

The first reference which has been applied to the Middle of the World is contained in Ps. lxxiv, 12: "For God is my King of old, working salvation in the midst of the earth." This has been quoted by later writers in way of explanation; but the words may have a sense of their own, and had no application to the Middle of the World as understood afterwards. The idea of Jerusalem being the Middle of the World is at least as old as the fourth century. In that quaint old book, "The Works of the Reverend and learned John Gregory," who was chaplain to the Bishop of Salisbury in the time of Charles I, there is a chapter on the subject of "Noah's Prayer," and the writer quotes St. Ephrem in regard to the preservation of Adam's body and its burial in "*the Middle of the Earth*, by a Priest of the most high God. For *Adam* prophesied this reason for it, that there should be the Redeemer of him and all his Posterity. The Priest who was to officiate at this Funeral they say was *Melchisedec*, and that he buried this body at *Salem;* which might very well be the middle of the habitable world as then, and that it was indeed so afterwards, it hath been told you before;" p. 118. The notion of the Middle of the World is somehow connected with the supposition that Adam was buried at the spot; or at least near to it; the tradition is that he was buried under the rock of Calvary. The Mohammedans have a similar tradition about Adam having been buried in the Middle of the Earth. El-Masudi, in his "Meadows of Gold, and Mines of Gems," says, "God said to Sám"—Shem —"'I will preserve him for ever, whom I make the guardian of the body of Adam.' Sám buried the coffin of Adam in the Middle of the Earth, and appointed Lamech as guardian." In this case Jerusalem was not the middle, for the Mohammedans believe that Adam was buried in



C. Schick.

a. Seems to be the pole.
b b. The Equator.
c c. The Meridian.

Mosque of El-Khayf, near Mecca. These two traditions seem to point to the conclusion that it is the supposed presence of Adam's body which gives the character to the spot.

St. Ephrem's words would show that the tradition in the Christian Church is as old at least as the fourth century. At a later period the references are numerous. Arculf visited Jerusalem about 700 A.D., and he "observed a lofty column in the holy places to the north, in the middle of the city, which, at mid-day at the summer Solstice, casts no shadow, which shows that this is the centre of the earth." One would suppose from the words that this column was somewhere in the town, and not in the Sepulchre; but the descriptions of the mediæval writers are very difficult to reconcile with each other. Compare the above with what Bernard the Wise says, who writes about a century and a half later; he describes four churches at the Holy Sepulchre, and between "is a parvis without roof, the walls of which shine with gold, and the pavement is laid with precious stone; and in the middle four chains, coming from each of the four churches, join in a point which is said to be the Middle of the World."

Sæwulf, date A.D. 1102, says, "At the head of the church of the Holy Sepulchre, in the wall outside, not far from the place of Calvary, is the place called Compas, which our Lord Jesus Christ himself signified and measured with his own hand as the Middle of the World;" to this he adds the words of Ps. lxxiv, 12: "For God is my King of old, working salvation in the midst of the earth." The "Compas" is one of the names the spot is known by, as if it merely served to indicate the cardinal points, like a compass on a map. Herr Schick's drawing and description shows that it preserves this character to the present day. Sir John Maundevile, it need scarcely be stated, is not a reliable authority, still his book is full of what were current traditions of the time. His date is 1322 A.D., he says, "And in myddes of that Chirche is a Compas, in the whiche Joseph of Aramathie leyde the Body of our Lord, whan he had taken him down of the Croys; and there he wassched the Woundes of oure Lord: and that Compas, seye men, is the Myddes of the World." Chap. vii.

Another title which it had was the "Navel of the World;" in the maps of the middle ages this term is often given. The Abbot Daniel gives it this name; his date is A.D. 1106–1107. "Behind the altar, outside of the wall, is the 'Navel of the Earth,' which is covered by a small building on [the vault of] which Christ is represented in mosaic, with the inscription, 'The sole of My foot serves as a measure for the heaven and for the earth.'" (*Palestine Pilgrim's Texts; The Abbot Daniel*, p. 13.) Sandys, who was in Jerusalem in 1611, says, "Towards the west end from each side equally distant, there is a little pit in the pavement [which they say] is the Navell of the World, and endeavour to confirm it with that saying in Scripture, '*God wrought his salvation in the midst of the earth*,' the which they fill with holy water." This "little pit" of Sandys' is very different from the "lofty column" of Arculf's description. At

present it is a vase with a curved stone projecting, but Herr Schick's section shows that holy water might still be poured on it, and find a receptacle.

WILLIAM SIMPSON.

THE SITE OF EBENEZER.

MANY years ago, after considerable study of the subject and repeated examination of the ground, I formed the opinion that the place of Ebenezer is now occupied by the village of Beit Iksa, and, notwithstanding that another site has been advocated by distinguished investigators, I still venture to think that this is the only spot which satisfactorily meets all the requirements of the case.

1. The spot should be "between Mizpah and Shen," and, as we may suppose, be a prominent and conspicuous spot. Such a spot is Beit Iksa. Taking Neby Samwîl to be Mizpah, and Deir Yesin to represent Shen, an examination of the map will show that a line drawn from one to the other would intersect this village. It is also remarkable that owing to an opening in the hills a person standing at Deir Yesin and looking towards Neby Samwîl has Beit Iksa in full view, although at a short distance the right or left it is not visible at all. From many other points it is very conspicuous, owing to its position near the summit of a hill abutting on the great valley of Beit Hannîna, which is there very open.

2. The locality should be adapted for the camping ground of a large army (1 Sam. iv, 1), have a supply of water, be easily defensible, so situated as to render communications with the interior of the Israelite territory easy, and afford a ready means of retreat in the event of an unsuccessful battle with the Philistine invaders. All these characterise the position of Beit Iksa. The hill on which it is built is nearly surrounded by deep valleys, whose steep, and in some parts precipitous, sides render the place almost impregnable in that direction, whilst a narrow ridge connects it with the only road along which the Philistines could march to the attack, which road, moreover, would expose the flank of the attacking force to an assault from the side of Mizpah. There is some water at the place itself, still more at Neby Samwîl, and an unlimited supply at the neighbouring fountain of Lifta, which must have been well within the Israelite lines.

3. There should be in the near neighbourhood some spot meriting the name of Aphek, the stronghold, in which the Philistines could securely encamp, and from which they could make their attack on the Israelite position. Such a spot is Kŭstŭl, *castellum*, which commands the modern road between Jerusalem and Jaffa. To the north of the miserable hamlet called by this name there is a broad plateau which affords evidence of having been used for a camping ground in ancient times, being still

surrounded by the remains of a rampart of large stones. From this position the Philistines could march in great security along the summit of the hill, past the site of the present Beit Surîk, until they came to where Biddu now is, when turning to the right they could direct their attack against either Mizpah or an enemy on the hill to the south, where Beit Iksa is situated.

4. The place should be so situated that a runner could reach Shiloh from it in a few hours. "There ran a man of Benjamin out of the army and came to Shiloh *the same day*," bearing news of the defeat of the Israelites, and loss of the ark. From Beit Iksa this might be accomplished by an eager and active messenger in four hours, or less ; the distance being about eighteen miles. From Deir Abân Shiloh is eleven or twelve miles further.

5. Mizpah should be so situated that an attacking force, if badly beaten, seized with panic, and thinking only of escape to its own territory in the south-western plain, would naturally flee down the valley which passes "under Beth Car," and that the pursuing Israelites, especially if they happened to be imperfectly armed (Josephus, Ant. 6, 2, 2), would not deem it prudent to follow the fugitives further than that. The valley which divides the hill of Beit Surîk from that on which Beit Iksa stands affords such a means of retreat from Neby Samwîl, and it was probably down this valley, past 'Ain el 'Alîk and 'Ain Beit Tulma, that the terrified Philistines (2 Sam. vii, 10, 11) reached the great watercourse which they knew would conduct them to their own country. Pressed by their pursuers, they would rush on by Motza (Kŭloneh) under their late camping ground at Aphek, over the boulders and rocks in the bed of the wady, and through the olive gardens at its sides, until they came "under Beth Car," which may be taken to be the village now called 'Ain Karim, where their foes would give up the pursuit, lest, becoming entangled in the narrow and stony valley, they should expose themselves to great risk in the event of the discomfited host rallying and turning upon them.

It may be objected to this identification that Neby Samwîl has never been *proved* to be Mizpah, Deir Yesin Shen, or 'Ain Karim Beth Car. Yet, when all the circumstances connected with the events narrated being taken together support this theory ; when it is found that the ancient names of two of the places are still retained ; when it is remembered that the position of Neby Samwîl and the tradition connecting it with that prophet are by almost all investigators held to favour the supposition that it is Mizpah ; and when it is considered that the identification of each of these four places in a very remarkable manner supports that of the others, there is surely a strong presumption that we need go no further in search of the site of this famous monument of the last of Israel's Judges.

It may not be altogether idle to enquire why Samuel placed his memorial "between Mizpah and Shen" instead of at Mizpah. The latter was not only a very conspicuous spot, as its name implies, but it was also a seat of government, and a centre of the religious life of the people. It

was not to Shiloh, where the Tabernacle was, but to Mizpah that Samuel gathered all Israel and drew water and poured it out before the Lord and prayed to the Lord for them. Perhaps the answer to such an enquiry is, that he placed his monument where the ark of God had once stood. We are taught in the second book of the Chronicles (viii, 11) that a place whereunto the ark of the Lord had come was regarded as holy, and what more natural, after the signal deliverance which had been experienced, than that the great ruler and guide of the nation should erect "the stone of help" upon the spot once sanctified by the sacred emblem of the Divine strength? Josephus tells us the stone was called *ισχυρος*, "the stone of *strength*." In Psalm lxxviii, 61, we have "and delivered *his strength* (*i.e.*, the ark) into captivity;" and again in 2 Chron. vi, 41, "arise, O Lord God, into Thy resting place, Thou and the *ark of Thy strength*;" in the Septuagint *ἡ κιβωτος της ἰσχυρος σου*. If the memorial came to be called in late times by its Greek name, it is not impossible that in *Iksa*, a word the derivation of which no one seems to know, we have a corruption of *ischuros*, like 'Amwas of Emmaus, Nablus of Neapolis. I have heard the place called Beit Iska, and a Mohammedan Sheikh once told me that that is the right name. The point is not of importance. The tendency of the Arabs to transpose consonants is well known.

It would seem that this idea of Ebenezer having marked the place on which the ark was once set misled Eusebius and his translator into supposing that the monument occupied the spot to which the Philistines brought back the ark. It is needless to say that there is no indication of this in the Bible; and it may reasonably be supposed that if Samuel had erected his trophy at Bethshemesh, or in the field of Joshua the Bethshemite, the narrative would have said so.

I have often questioned with myself whether these struggles with the Philistines did not (as some seem to suppose) take place nearer to the Philistine frontier than Neby Samwîl and Beit Iksa are. But I find no confirmation of this suggestion in the sacred text. Other important battles against the same foes took place still further in the heart of the Israelite country, as at Michmash and on Mount Gilboa.

THOMAS CHAPLIN, M.D.

NOTE.

Dr. Chaplin having kindly sent me the proof of his paper on Ebenezer, I have only one or two remarks to offer on the subject.

I do not hold it to be proved that Deir Abân is Ebenezer, but, as I have pointed out in the "Memoirs," Deir Abân is the place which Jerome supposed to be Ebenezer. It is quite possible that Jerome was wrong in this as in other cases. The site of Mizpah is uncertain, as it may be either at Neby Samwîl or perhaps at Shâfât. The identity of Shen and Deir Yasin seems to me doubtful, because names with Deir preceding are usually of Christian origin. 'Ain Kârim is, I believe, the Biblical Beth

Haccerem, but it might be Beth Car also. On two occasions I have searched the country south of Neby Samwîl, hoping to find some monument such as Ebenezer, but we never found anything of the kind. I agree with Dr. Chaplin, however, in thinking that the distance from Deir Abân to Shiloh is an objection to the 4th century traditional site.

C. R. C.

ANTIOCH IN 1051 A.D.

In a recent number of the *Quarterly Statement* (April, 1888, p. 66) Mr. Greville Chester has given an interesting account of the extant ruins of Antioch. The modern Turkish town, which Mr. Greville Chester visited during the autumn of last year, has preserved but few remains of the old Byzantine capital of the East. Earthquakes, for which the territory of Antioch has always been ill-famed, have thrown down most of the ancient buildings, and, for the rest, the Turks have destroyed the great city walls and carried off the stones of both temples and churches to build into their hovels.

Of the great Christian city, while still in the hands of the Greeks, and prior to the Arab conquest and the subsequent Latin occupation, so few records have come down to us that I have thought the following account, written during this early period by the Physician Ibn Butlân, may be worthy of publication.

During the centuries that succeeded the first Arab conquest Antioch, more even than the other great towns of Syria, suffered by the fortunes of war. Previous to that epoch, though sacked by the Persian Chosroes, Sapor, in A.D. 260, she had remained, without rival, the Eastern capital of the Byzantine Cæsars. In 635, however, Antioch shared the fate of all other places in Northern Syria, and fell into the hands of the all-conquering Arabs; but, unlike the cities and territories to the south, Antioch, together with Adana, Tarsus, and Mopsuestia, was retaken before thirty years had elapsed by the army of Nicephorus Phocas (A.H. 353, A.D. 964).[1] During the next hundred and twenty years (A.D. 964 to 1084) Antioch remained to the Byzantines, resisting all the attacks of the Muslims, and it was during the latter part of this period that the city was visited by Ibn Butlân.

In 1084 the citadel was at last betrayed into the hands of Sulaîmân ibn Kutlimish, the Saljûk Sultan of Iconium. Fourteen years later, however, Antioch was retaken by the first Crusading armies, in 1098, after a siege which had lasted nine months, and which had been characterised by many extraordinary and miraculous events. Antioch then remained a Christian principality for the next hundred and eighty years, but in the end, after the Franks had been driven out of all the remainder of Syria, this last stronghold, too, fell (1268 A.D.) before the arms of the Egyptian Sultan Baibars, and it has since remained in the hands of the Muslims.

[1] See Gibbon, ch. lii, end.

The present account, descriptive of the city about A.D. 1051, while still (after the first short Arab occupation) in the hands of the Byzantines, is translated from the Arabic text given in Yâkût's great "Geographical Dictionary,"[1] which latter work was written in A.D. 1225. Yâkût quotes the account verbatim from the "Epistle" (*Risâlah*) which Ibn Butlân addressed to his friend, Abu-l Husain Hillâl ibn al Muhsin as Sâbî, at Bagdad. The "Epistle" was written "in the year 440 and odd," says Yâkût; the date, however, mentioned incidentally in the course of the narrative, shows that Ibn Butlân must have passed through Antioch during the year 443, *i.e.*, A.D. 1051. Ibn Butlân was a well-known Christian Arab physician, and a native of Bagdad. In A.H. 439 (A.D. 1047) he set out from that city to visit his Egyptian rival, the physician Ibn Rudhwân, at Cairo, and, going thence to Constantinople, took his return journey through Antioch. Here, age and the vanity of human wisdom caused him to abandon the world, and he became a monk, dying very shortly afterwards at Antioch, in the year 444 A.H. (1052 A.D.).[2]

In Hajji Khalfah's "Bibliographical Dictionary" mention is made of a medical work by Ibn Butlân which appears to have enjoyed some celebrity,[3] but no notice is taken of his "Epistle," of which, to the best of my knowledge, no MSS. are known in Europe, and which therefore is only available to us in the extracts inserted by Yâkût in his "Geographical Dictionary." He writes as follows :—

Says Ibn Butlân, in the Epistle he wrote to Abu-l Husain Hilâl ibn al Muhsin as Sâbî, at Baghdad, in the year 440 and odd :—

"We left Halab (Aleppo) intent on journeying to Antâkiyyah (Antioch), and the distance is a day and a night's march ; and we found all the country between Halab and Antâkiyyah populous, nowhere ruined abodes of any description. On the contrary, the soil was everywhere sown with wheat and barley, growing under the Olive trees ; the villages ran continuous, their gardens full of flowers, and the waters flowing on every hand, so that the traveller makes his journey here in contentment of mind, and peace and quietness."

"Antâkiyyah is an immense city. It possesses a wall and an outer wall (*fasîl*). The wall has 360 towers, and these are patrolled in turn by 4,000 guards, who are sent to Antâkiyyah every year from the presence of the King in Constantinople, as warrant for the safe-keeping of the city, and in the second year they are changed. The plan of the city is that of a semicircle ; its diameter lying along the mountain,[4] and the city wall climbs up over the mountain to its very summit ; and further the wall completes the semicircle (in the plain below). On the summit of the mountain, but within the wall, is a castle (*Kal'ah*), which appears quite small from the city below on account of its distance up ; and this

[1] Mu'jam al Buldân, ed. Wüstenfeld, vol. i, pp. 382–385.

[2] *See* Wüstenfeld : Geschichte der Arab. Aerste, p. 78, No. 133.

[3] Hajji Khalfah, vol. iii. p. 229, No. 5087.

[4] Mount Silphius. For an account of the present condition of these walls see Mr. Greville Chester's paper, p. 67.

mountain shades the city from the sun,[1] which only begins to shine over it about the second hour (of the day). In the wall surrounding (the city), and in the part not on the mountain, are five gates."

"In the centre of the city is the Church of Al Kusyân. It was originally the palace of Kusyân the King, whose son, Futrus (St. Peter), chief of the Disciples, raised to life.[2] It consists of a chapel (*Haikal*), the length of which is 100 paces and the breadth of it 80, and over it is a Church (*Kanîsah*) supported on columns, and all round the Chapel are colonades in which the Judges are seated to give judgment, also those who teach grammar and logic. At one of the gates of this church is a Clepsydra (*Finjân*) showing the hours. It works day and night continuously, twelve hours at a round, and it is one of the wonders of the world."

"In the upper portion (of the city) are five terraces, and on the fifth of these are the baths, and gardens, and beautiful outlooks. You may hear in this spot the murmuring of waters, and the cause thereof is that the waters run down to this place from the mountain which overhangs the city. There are in Antâkiyyah more churches than can be counted; every one of them ornamented with gold and silver and coloured glass, and paved in squares. In the town is a Bîmâristân (or Hospital), where the Patriarch himself tends the sick, and every year he causes the Lepers to enter the bath and washes their hair with his own hands. Likewise the King also does this service every year to the poor. The greatest of the lords and patricians vie in obtaining of him permission after the like fashion to wash and serve these people. In this city there are hot baths, such as you can find the equal nowhere else, in any other town, for luxury and excellence; for they are heated with myrtle wood (*al âs*), and the water flows in torrents and with no scant. In the Church of Al Kusyân are innumerable servants who all receive their daily rations, and there is an office (*dîwân*) for the expenditure and receipts of the Church, in which office are some ten or more accountants."

"Some year and a part ago a thunderbolt struck the Church, and the manner of its doing so was most extraordinary. Now at the close of the year 1362 of Alexander, which coincides with the year 442 of the Hijrah (1050 A.D.), the winter rains had been heavy, and some part of the days of the month Nîsân (April) were already past, when, on the night whose morrow was Saturday, the 13th of Nîsân, there came thunder and

[1] The mountain is to the south of Antioch.

[2] The church here alluded to must, I imagine, be that dedicated to SS. Peter and Paul, and built by the Emperor Justinian, where, in later times (according to the traveller Willebrand, of Oldenburg), the Latin Princes of Antioch were buried. Who is referred to under the name *Kusyân* I have been unable to discover, neither do I know of any mention of St. Peter having raised a king's son to life at Antioch. Perhaps some reader of the *Quarterly Statement* more versed than myself in the Apocryphal gospels may be able to give us light on this point. According to Church tradition, based on Gal. ii, 11 *et seq.*, St. Peter was Bishop of Antioch before going to Rome.

lightning such as had never been known in the present time, nor remembered nor heard of in the past. The claps of thunder were oft repeated, and so terrible as to cause the people to cry out in fear. Then, on a sudden, a thunderbolt fell and struck a Shell[1] which screens the altar (in the Church) of Al Kusyân, and it split from off the face of this Christian (emblem) a piece like what might be struck off by an iron pick-axe with which stone is hewn. The iron cross, too, which was set on the summit of this Shell, was thrown down (by the stroke), and remained on the place where it fell; and a small piece also was cut off from the Shell. And the thunderbolt descended through the crevass in the Shell, and travelled down to the Altar along a massive silver chain, by which is suspended[2] the Censer; now the size of this crevass was of two finger-breadths. A great piece of the chain was broken off, and part of it was melted, and what was melted of it was found dropped down on the surface of the ground below. A silver crown which hung before the table of the Altar was also thrown down. Beyond the table (of the Altar), and to the west of it, stood three wooden stools, square and high, on which were usually set three large crosses of silver, gilt, and studded with precious stones; but the night before they had removed two of the crosses, those on either side, taking them up to the Church Treasury, and leaving only the middle cross in its place. Now the two stools on either side were smashed (by the thunderbolt), and the pieces sent flying over and beyond the Altar—though here there was seen no mark of fire, as had appeared in the case of the chain—but the stool in the middle remained untouched, nor did anything happen to the cross that was set thereon."

"Upon each of the four marble columns which supported the silver dome covering the table of the Altar was cloth of brocade, wrapping round the column. Each one of these suffered a greater or lesser stroke (from the thunderbolt), but the stroke fell in each case on a place (in the cloth) where it had been already worm-eaten and worn to shreds; but there was no appearance as though flame had scorched it, or that it had been burnt. The table (of the Altar) was not touched, nor was any damage done to the (altar) cloths upon it; at least, no sign of it was to be seen. Some of the marble (slabs) which were in front (below) the table of the Altar were struck as though by the blow of a pick-axe, and the mortar

[1] The word in the text is *Sadafah*, which the dictionaries translate "a shell, particularly of a kind found in the Red Sea." What Church vessel or ornament is here intended I cannot tell, but perhaps some who are well acquainted with the details of the Greek rite would be able to throw some light on the matter. *Sadafah* (written without vowels, the first letter being the guttural s, *Sad*) may possibly not be an Arabic word, but merely the transcription of the Greek name of some church ornament. I can, however, find nothing in Du Cange to answer to *Sadfah*, *Sudfah*, or *Sidfah*, &c.

[2] The word given in the text is *al Thumiyatûn*, evidently not an Arabic word. In Du Cange (Gloss. Mediæ et Infimæ Græcitatis. Ludg. Bat. MDCLXXXVIII, p. 502). I find "Θυμιατὸν, Thuribulum (a censer), Acerra (a casket for incense)," which I take to be the object intended.

and lime setting thereof (was cracked). Among the rest was a large slab of marble, which was torn from its bed and fractured, and thrown up on to the square top of the silver dome covering the table of the Altar, and here it rested, the remaining pieces of the marble being torn from their bed and scattered far and near. In the neighbourhood of the Altar was a wooden pulley, in which was a hemp rope—quite close to the silver chain which had been broken, and part of it melted—and (to this rope was) attached a large silver tray, on which stood the bowls[1] of the glass lamps. This tray remained untouched, none of the lamps were overturned, nor aught else ; neither did any damage happen to a candle that stood near the two wooden stools (formerly mentioned). The greater part of these wonderous occurrences were witnessed by many who were in Antâkiyyah."

"Outside the city, on the night of Monday, the 5th of the month Âb (August), of the year before mentioned, there was seen in the heavens the likeness of a window, through which light shone out broad and glittering, and then became extinguished. The people waited till morning, expecting some event therefrom. And after a time news came that in the early part of the day of that Monday, at the City of Ghunjurah,[2] which lies in the Greek country, and is nine days' journey from Antâkiyyah, terrible earthquakes had taken place, following one another continually. The greater number of the houses (of this city) had been thrown down, and a piece of ground outside the town had been swallowed up, while a large church and a fine fortress which had stood there had both disappeared, so that no trace remained of either. From the crevass extremely hot water had been thrown up, flowing forth from many springs. It had drowned 70 farmsteads ; and the people fleeing therefrom had escaped for safety to the hill tops, and high places around. The water covered the surface of the ground during seven days, spreading round about the city for the distance of two days' journey. After that time it disappeared, and the place where it had been became a swamp. A number of those who were witnesses of these events testified thereto, and the people of Antâkiyyah reported to me all that I have here set

[1] In the text the word is *firâkh*, which means literally "chickens" of the glass lamps. The word, however, has other meanings, as *arch-way*, *folio of paper*, &c., and must, I imagine, be taken here in the sense of a *bowl* or other vessel, in which the wick of the lamp was set.

[2] Gunjurah is, I conclude, the town of Gangra, the capital of Paphlagonia, and the Metropolitan See of the province. Yakût does not mention Gunjurah elsewhere. The geographer Kaswînî (Wüstenfeld's ed. of the text, vol. ii, 368) says that Gunjurah is a city in the Greek Territory and stands on the river called *al Maklub* (the overturned river)—a name also given to the Orontes, as stated below, because it flows from south to north, contrary to the habit of other rivers. This river al Maklûb must be the name of one of the affluents of the Halys, which flows north into the Euxine, on which the town of Gangra is built. Kaswînî then proceeds to give the story of the great earthquake and innundation in much the same words as those found in our text.

down. They related further, that when the inhabitants had carried up their goods to the hill tops, the ground rocked so by the mighty earthquake that their chattels came rolling down again to the level earth below."

"Outside the city (of Antâkiyyah) is a river called Al Maklûb[1] (meaning the Overturned, because) it takes its course from south to north. It is of the size of the Nahr 'Isâ (in Babylonia). There are, along its bank, mills, and it waters the gardens and grounds (of the city)."

(Saith Yâkût), so ends what we have transcribed from the work of Ibn Butlân.

GUY LE STRANGE.

THE MUSLIM LEGEND OF THE CAVE OF THE SLEEPERS.

THE story of the Companions of the Cave is one that from earliest times has proved a favourite with the Muslims. This probably was in the beginning due to the fact that the Prophet had set the incidents connected with the legend of the Seven Sleepers of Ephesus to illustrate one of the didactic chapters of the Koran. The Christian legend will be found related at length in the *Acta Sanctorum* of the Bollandists, under date of July 27th. (Tomus vi, p. 375. *de SS. Septem Dormientibus.*)

Briefly the account given is that in the year 250 A.D., during the reign of the Emperor Decius, there lived at Ephesus seven young men, brothers, and ardent Evangelists, whose names, as given in the Roman martyrology, were: Maximilianus, Marcus, Martinianus, Dionysius, John Serapion and Constantinus. In order to escape the persecution then being directed against the Christians, they hid themselves in a cave in Mount Cælian. On being discovered by their persecutors they were walled up in the Cave, and there took sleep in the Lord. In the year 470, under the Emperor Theodosius, their bodies were discovered and ultimately were brought to the Church of St. Victor, in Marseilles, where they now lie.

The legend was apparently of Syrian origin. It has given its name to the 18th chapter of the Kuran, of which the following verses are the most important:—

Verse 8.[2]—Hast thou reflected that the Inmates of the Cave and of Ar Rakîm were one of our wondrous signs?

Verse 9.—When the youths betook them to the Cave they said "O, our Lord! grant us mercy from before Thee, and order for us our affair aright."

Verse 10.—Then struck we upon their ears (with deafness) in the Cave for many a year.

[1] The Orontes.

[2] Quoted from Rev. J. M. Rodwell's translation.

Verse 16.—And thou mightest have seen the sun when it rose pass on the right of their Cave, and when it set leave them on the left, while they were in its spacious chamber.

Verse 17.—And thou wouldest have deemed them awake though they were sleeping; and we turned them to the right and to the left. And in the entry lay their dog with paws outstretched. Had'st thou come suddenly upon them thou wouldst surely have turned thy back on them in flight, and have been filled with fear at them.

Verse 18.—Then we waked them that they might question one another. Said one of them, "How long have ye tarried here?" They said, "Your Lord knowest best how long ye have tarried; send now one of you with this your coin into the city, and let him mark who therein hath purest food, and from him let him bring you a supply; and let him be courteous and not discover you to any one.

Verse 19.—For they if they find you out will stone you, or turn you back to their faith, and in that case it will fare ill with you for ever."

Verse 20.—And thus we made their adventure known to (their fellow-citizens), that they might learn that the promise of God is true.

Verse 21.—Some say they were three, their dog the fourth; others say five, their dog the sixth guessing at the secret, others say seven, their dog the eighth.

Verse 24.—And they tarried in their cave three hundred years and nine years over.[1]

During the course of the last twelve months, while getting together the materials for a book which, it is hoped, will contain all the important notices of Palestine and Syria that occur in the works of the mediæval Arab geographers, I have had occasion to devote much of my attention to the pages of Yâkût's great "Geographical Encyclopædia." Of Yâkût, his life, and his works, I have given some short account in a recent paper in this journal.[2] The prodigious extent of Yâkût's labours, however—for the book gives a detailed account of all the countries and towns in Muslim lands (as matters stood in the 13th century) from Spain in the west to beyond Transoxiana and India in the east—is but little known beyond the narrow circle of Semitic scholars, for the work has never been translated. Some idea of the mass of information, both geographical and historical, therein contained may perhaps be gathered from the statement that the Arabic text, as printed at the cost of the German Oriental Society, covers close on *four thousand* pages, large 8vo.; an English translation, with the needful notes, would therefore occupy from double to treble that space.

[1] They entered the cave under Decius, and awoke in the time of Theodosius, according to the Christian tradition, *i.e.*, about 220 years, which does not agree with the 309 years of the Kurân. See Gibbon, "Decline and Fall," at the end of chapter xxxiii.

[2] *Quarterly Statement* for January, 1888.

Scattered up and down the volumes of Yâkût, under various headings, are many curious details relating to the legend of the Seven Sleepers, and these I have now brought together for purposes of comparison with accounts derived from other early Muslim writers.

Starting with the verses of Kurân, before quoted, where "The Cave and Ar Rakîm" are mentioned, the Muslims were much exercised in their minds as to what signification should be attached to the word *Ar Rakîm*. According to one account ("Yâkût," ii, p. 805), Ar Rakîm was said to be "a tablet of lead on which were inscribed the names of the men of the Cave, and their history and the date of their flight." The authority of the great traditionist Ibn 'Abbas, is, on the same page, given in support of the view that Ar Rakîm was the name of the Cave, which, it is further stated, "lay between 'Ammuriyah (Amorium) and Nîkiyah (Nicæa), being ten or eleven days' journey from Tarsus." Other authorities, however (says Yâkût), hold Ar Rakîm to be either the name of the village where the youths lived, or of the mountain in which the cave was to be found. Or, says Yâkût, at another place (ii, 175), "Jairam, is said to be the name of the Cave of the Sleepers."

The same 'Ibn Abbas ("Yâkût," ii, 805) further states that the names of the Seven Sleepers were these :—Yamlîkhâ (Jamblichus), Maksimilînâ (Maximilianus), Mashilînâ (Marcellus?), Martûnûs (Martianus), Dabriyûs (Dionysius? or Demetrius?), Sirabiyûn (Serapion), and Afastatiyûs (Exustadianus?). The name of their dog being Kitmir, and of the king from whom they fled Dakyânûs (Decianus, a mistake for Decius). The name of their city is given, very correctly ("Yâkût," ii, 806), as Afasûs (Ephesus); Ar Rakîm being here the name of the cave, and Ar Rass the name of the village where the youths dwelt. In a previous article, however ("Yâkût," i, 91), we find another spelling :—"Abasûs, a ruined city of the country of the Greeks, from which the Companions of the Cave came. It is said to be the City of Dakiyânûs, and it lies near Abulustain." Two pages further on (*op. cit.*, i, p. 93) Abulustain is given as "a celebrated city in the Greek country, near to which is Ar Rakîm." Abulustain, near Ephesus, is the place at the present day called Al Bustân. In the last volume of "Yâkût" (vol. iv, p. 1040), "Yanjalûs" (evidently a Greek name) is stated to be the name of the mountain in which lay the Cave of the Sleepers, but some doubt is expressed as to where the mountain was situated.

Besides the neighbourhood of Ephesus, Yâkût localises the legend in two other places, namely, in the trans-Jordanic province of the Balkâ, and in Spain. In the latter country, says "Yâkût" (vol. ii, p. 125, and also p. 806), "some say the Cave and Ar Rakîm are to be found at *Jinân al Ward* (the Gardens of the Rose), in Andalusia, and that Tulaitalah (Toledo) is the City of Dakiyânûs—but God knows best." Of Ar Rakîm, in the Balkâ, a curious story relating to a cave will be found given in "Mukaddasi" (p. 56 of my translation, Pal. Pil. Text Soc.), which, however, is not of sufficient importance to be quoted over again in this place.

Dating from the early days of Islam, we have two separate and very

circumstantial accounts of visits to certain caves in Asia Minor, said in each case to have been the particular Cave of the Sleepers. They are both quoted by Yâkût. One dates from the days of Abu Bakr, the successor of Muhammad; the other visit is related as having taken place about two centuries later under the Abbaside Khalif of Baghdad, Al Wâthik, grandson of Harun ar Rashid.

Of the first account the following is a translation :—

(" Yâkût," vol. ii, pp. 806, 807.)

Ubâdah ibn as Sâmit relates as follows :—" Abu Bakr as Siddîk despatched me, the year he became Khalif (A.H. 11, A.D. 632) to the King of Rûm to exhort him to receive Islâm, or else to declare him war."

'Ubâdah continues :—" We journeyed until we entered the country of the Greeks, and when we were approaching Constantinople, there appeared before us a red mountain in which they said were the Companions of the Cave, and Ar Rakîm. So we turned aside to a monastery and enquired of the people thereof concerning them; and they pointed out a passage in the mountain. Then we told them that we wished to see the (Companions of the Cave). They said 'give us somewhat,' and we gave them Dînârs. Then they entered the passage, and we entered after them, and there was herein a door of iron which they opened, and they brought us to a mighty chamber (*bait*), hollowed in the mountain in which were thirteen men, lying on their backs, as though they were asleep. They all were covered from head to foot with dust-grey cloaks and shirts. We could not discover whether their clothes were of wool or of hair, or of what other material, but the texture was harder than brocade, and crackled from their thickness and the excellence of the stuff. We saw that most of them had on boots (*khufâf*), reaching up to the middle of the leg, but some were shod with sandals (*ni'âl*) sewn together. Both the boots and the sandals were of excellent sewing, and the leather was such as the like I have not seen elsewhere. We uncovered their faces, one after the other, and lo! in all was the complexion of healthful bloom, and of red blood (in the cheeks) as is the appearance of a living man. Of some (the hair) was turning grey, and some were in their youth with black hair, some had flowing locks and some were shaven. Their stature was that of ordinary Muslims. When we came to the last of them we beheld that his head had been cut off with a sword-stroke, and it was as though it had been struck off that very day. We enquired of those who had conducted us hither, what they did with these men. They replied, it was their wont to come in here on the festival day of (the Companions of the Cave), when the people of all the country would assemble at the gate of the cave, coming in from all the towns and villages around; and that then, during some days, they would stand the dead men upright in order to clean them, and shake the dust from their cloaks and shirts, also they pared their nails, and cut their moustaches; and after this they laid them down once more in the position in which we now saw them.

" Then we enquired of our guides as to who these men had been, and

what had been their office, and how long they had lain in this place. The guides answered us they had found in their books that these men had lain in this place since 400 years before the Coming of the Messiah—peace be upon Him—and that they had been Prophets, sent at a certain time, and that they knew naught more of their condition but this."

Says 'Abd Allah (Yâkût), the poor servant (of God) :—"All this have I copied from the work of a man of trust, but Allah alone knows if it be true."

A similar account to the one just quoted (of 'Ubâdah's visit) is given in almost identical terms by Mukaddasi (*see* p. 6 of my translation, published in the "Palestine Pilgrims Texts"), with, however, the following variants :—Mukaddasi, writing in A.H. 375, A.D. 985, states that his account is from a certain *Mujâhid ibn Yazîd*, who accompanied Khâlid al Barîdî to Constantinople, in A.H. 102, A.D. 720, that is about ninety years later than the above-mentioned expedition by 'Ubâdah. The details of what was seen are, however, in the main identical with the first account —as regards the appearance of the men, their clothes, the nail-paring, &c., and the feast-day when the country people came to visit them. The cave, on the other hand, is stated to have been situated in the mountains at Al Hawiyyah, not far from Laodicea Combusta, between Armorium and Iconium, and the guardians further gave the following account of "the Prophet" whose head had been cut off.

(Translation of Mukaddasi, p. 7).

They answered, saying, "When the Arabs came down on us and took possession of Al Hawiyyah, we gave them this information concerning these dead men, but they would not believe us, and one of the Arabs struck the head off this body."

With these two accounts of visits in A.H. 11, and in A.H. 102, may be compared the account of the Astrologer Musa, whose visit took place more than a century later than that of Mujâhid.

("Yâkût," vol. ii, pp. 805, 806).

It was (the Khalif) Al Wâthik (A.H. 227–232, A.D. 842–847), who sent Muhammad Ibn Mûsâ al Munajjim (the Astrologer) to the countries of the Greeks to discover the Companions of the Cave and Ar Rakîm. This (Muhammad, the Astrologer) reports (of his journey as follows) :—"And we reached the country of the Greeks, and lo ! before us was a small mountain, the base of which was not more than a thousand ells (round). In its side is a passage, and you enter by this passage and pass through a tunnel in the ground for the distance of three hundred paces, when you arrive at a portico (*Riwâk*). This is in the mountain ; it is supported by columns cut out (of the rock. In the rock) are numerous chambers (*bait*), and among them one with a tall door-way, of man's height, closed by a stone gate. It is here the dead men lie. There was one in attendance who guarded them, and with him were eunuchs. The guardian would have turned us aside from seeking to see the dead men, for he said, that of a surety he who went down to seek them would

receive some bodily injury. But by this dissimulation he sought to keep the advantage thereof to himself (and his people)."

"Then said I to him, 'Give me but a sight of them, and thou shalt be free (of all blame in the matter).' So I ascended, with great pain, a rough way, accompanied by one of my young men, and I beheld these (dead men). And lo! (their bodies) had been rubbed with unguents, the hair being soft to the hand, and their limbs anointed with aloes and myrrh, and camphor to preserve them. Their skin clave to the bones, for I passed my hand over the breast of one of them, and I found the hair thereof rough. The garments were strong (of texture)."

"After that (we had returned) the guardian presented us with food, and besought us to eat; but when we took thereof and tasted it, our stomachs revolted from it, and vomited it up again. It was as though a vilany had been attempted and that (the guardian) had sought to kill us, or certain of us at least, in order to justify the words of dissimulation used in the presence of the king, when saying that the companions of Ar Rakîm would surely work us evil. Then said we to the (guardian), 'We had imagined they would have been living men, but with the semblance of those who are dead; but behold these (men) are not of this sort!' And we left him and went our ways."

Speaking of this and other accounts of the Cave of the Seven Sleepers, Al Birûnî (who wrote in A.H. 390, A.D. 1000) has some pertinent remarks. I quote from Prof. Sachau's excellent translation of the text,[1] where, in the chapter on the Festivals of the Syrian calendar, under the date of the "5th of Tishrin I." (October), we find the following:—

"Commemoration of the Seven Sleepers of Ephesus, who are mentioned in the Coran. The Khalif Al Mu'tasim had sent along with his ambassador another person who saw the place of the Seven Sleepers with his own eyes and touched them with his own hands. This report is known to everybody. We must, however, observe that he who touched them, *i.e.*, Muhammad ibn Mûsâ ibn Shâkir, himself makes the reader rather doubt whether they are really the corpses of those seven youths or other people—in fact, some sort of deception. 'Ali ibn Yahyâ, the Astronomer, relates that on returning from his expeditien he entered that identical place, a small mountain, the diameter of which at the bottom is a little less than 1,000 yards. At the outside you see a subterranean channel, which goes into the interior of the mountain, and passes through a deep cave in the earth for a distance of 300 paces. Then the channel runs out into a sort of half-open hall in the mountain, the roof being supported by perforated columns; and in this hall there is a number of separate compartments. There, he says, he saw thirteen people, among them a beardless youth, dressed in woollen coats and other woollen garments, in boots and shoes. He touched some hairs on the forehead of one of them and tried to flatten them, but they did not yield. That their number is more than seven—which is the Muhammadan—and

[1] Sachau's translation of Al Birûni's Athâr ul Bâkiya, 1879, p. 285.

more than eight—which is the Christian tradition—is perhaps to be explained in this way, that some monks have been added who died there in the same spot. . . . ."

A few words may be added in conclusion regarding the names of the Seven Sleepers, as given in the authorities quoted in the "Acta Sanctorum" of the Bollandists (Julii, Tomus VI, p. 375, *et seq.*), and in the "Bibliotheca Orientalia" of Assemani (Vol. I, p. 335, *et seq.*).

The legend of the Seven Sleepers is first referred to in Western literature by Gregory of Tours ("De Gloria Martyrum," Vol. I, 9, caput 95), according to whom they were seven in number, their names being Clemens, Primus, Lætus, Theodorus, Gaudens, Quiriacus (or Cyriacus) and Innocentius. In the official list of the Roman "Acta Sanctorum" the names appear in Latin, as :—Maximianus, Constantinus, Malchus, Serapion, Martinianus, Dionysius, Johannes; in Greek the first two figure as Maximilianus and Constantinianus respectively, while Exacustodianus replaces Malchus, and Jamblichus, Serapion.

In Assemani ("Bibl. Or.," Tom. I, p. 336) we find a list taken from the writings of Dionysius, the Jacobite patriarch, who gives the number as *eight*, their names being: Maximilianus, Jamblichus, Serapion, Martinianus, Johannes, Exustadianus, Dionysius, and Antoninus.

The following are the names, *seven* in number, from other Martyrologies, as given in the "Acta Sanctorum" (*loc. cit.*, p. 376) :—

Russian.—Maximilianus, Dionysius, Amulichus, Martinus, Antoninus, Johannes, Marcellus.

Ethiopian (as given by Jobus Ludolfus, "Calendarium Æthiopicum," p. 436) :—Arshaledes, Diomedes, Eugenius, Dimatheus, Bronatheus, Stephus, Cyriacus.

The list given by the Arab traditionist, Ibn 'Abbas (cited above, p. 273), is doubtless somewhat corrupt. In "Eutychius" (edited by Pocock, Vol. 1, p. 390 of the text) the names appear as : Maksimyânûs, Amlîkhus, Diyânûs, Martîmûs, Diyûnîsiyûs, Antûniyûs, Yuhannâ.

This variety in the names would appear to have struck the Martyrologists as requiring some sort of explanation. In the "Acta Sanctorum" (*loc. cit.*, p. 376) the opinion of an anonymous Greek author of a MS. in the Medicean Library is quoted, as also that of Boninus Membritius. These are both of the opinion that the variants were due to the fact that the individuals are cited in one account under their original Pagan names, in another under the names they received in baptism. Thus, according to the anonymous Greek author :—

Μαξίμιλιανὸς	was baptised	Ἀχιλλιος.
Δεμετριος	,,	Ἰαμβλιχος.
Ἐξακουστουδιανος	,,	Λιομηδης.
Ἀντονινος	,,	Κυριακος.
Μαρτινος	,,	Ἐυγενιος.
Διονυσιος	,,	Στεφανος.

Boninus Membritius, however, has the list as follows :—

Achiledus	was baptised	Maximus.
Diomedus	„	Malchus.
Eugenius	„	Martinianus.
Stephanus	„	Constantius.
Probatius	„	Dionysius.
Sambatus	„	Johannes.
Cyriacus	„	Serapion.

The story of the Sleepers, though probably at first merely a local legend of Syrian origin, has been carried far and wide, over the West and the East. One version is found in Scandinavia, and the account localised in Muslim Spain has already been alluded to. Finally, are not the numerous popular beliefs, according to which Arthur, Barbarossa, Roderic the Goth, and, at a later period, Don Sebastian of Portugal (not to mention various other renowned monarchs), are now asleep in caverns, but will awake and return to reign in the fulness of time—are not all these but variations of the old legend of which the Cave of the Sleepers of Ephesus is the first Christian example?

GUY LE STRANGE.

AN INSCRIPTION IN THE AKSÂ MOSQUE.

IN my translation of Nâsir-i-Khusrau's account of Jerusalem and Palestine, recently published by the Palestine Pilgrim's Text Society, there is a mistake in a note which I should wish to correct. The first note on p. 37 of the translation reads as follows :—

"In 425 A.H. (1033) the dome of the Aksâ Mosque had been seriously damaged by a shock of earthquake. It was restored next year by order of the Fatimite Khalif of Egypt, Ad Dhâhir, the work, *according to the extant inscription in the dome*, having been terminated in the month Dhû l Kaâdah, 426 A.H. (September, 1035), that is less than eleven years prior to our Pilgrim's visit."

The words printed in *italics* should be altered as follows :—

"*According to the inscription quoted* (A.D. 1173) *by Ali of Herat, and probably still extant*," &c.

The mistake arose from my having confounded an inscription mentioned by M. de Vogüé as still existing in the Dome of the Rock, with the one mentioned by Ali of Herat as read by him in the Dome of the Aksâ Mosque.

The earthquake of the year 407 A.H. (1016 A.D.) had greatly damaged the framework of the Dome of the Rock, and this was restored by order of the Fatimite Khalif Ad Dhâhir, as shown in the inscription, in ancient Karmatic characters, still to be seen on the framework in that dome,

which M. de Vogüé has reproduced in his work "Le Temple de Jérusalem," at p. 93. Of this inscription the following is a translation :—

"In the name of Allah the Compassionate, the Merciful. Verily he who believeth in Allah, restoreth the Mosques of Allah. Hath commanded the restoration of this Blessed Dome, the Imâm Abu-l-Hasan 'Ali ad Dhâhir li Izâz ad Dîn Allah, the son of Al Hâkim bi Amr Illah, Commander of the Faithful, the benediction of Allah be upon him, and on his most pure and generous forefathers. This was executed at the hand of his servant the Amir, the supporter of the Imâms, the sustainer of the State, Ali ibn Ahmad Inâbat Allah, in the year 413 (A.D. 1022). May Allah perpetuate the glory and the stability of our Master the Commander of the Faithful ; giving him kingship over the East and the West of the earth : for Him we praise at the beginning and the ending of all actions ! "

Further, inside the Dome of the Rock, on the tile-work, can still be read an inscription, which is unfortunately much mutilated, but of which the last few words are plainly legible. (*Cf.* de Vogüé, op. cit., Plate XXIII.) The last words may be translated, ". . . in the year four hundred and eighteen." A.H. 418 = A.D. 1027, which shows that these tiles were put up to replace those damaged probably by the same earthquake.

A third inscription of the same period, relating to the Khalif ad Dhâhir's restoration, is also given by M. de Vogüé (op. cit., p. 77). He states it may still be clearly read, though in a rather dilapidated condition, on two of the battlements of the outer wall of the Haram Area, near the *Cradle of Jesus*, at the S.E. angle. The remains of this inscription, translated, read as follows :—

". . . the days of the Imâm ad Dhâhir li Izâz ad Dîn Allah, the Commander of the Faithful . . . (words illegible) . . . the southern outer wall and the . . . (eastern ?) outer wall . . . year four hundred and twenty-five."

The year 425 (A.D. 1033) was the year of the earthquake, when the dome of the Aksâ Mosque was damaged.

I now come to the inscription in the Dome of the Aksâ Mosque, seen by Ali of Herat, of which M. de Vogüé makes no mention, but which may very probably still be discovered should search be made. Perhaps Mr. C. Schick, or some other gentleman at present resident in Jerusalem, would take the trouble to look for it.

In the Bodleian Library is an excellent little manuscript of Ali of Herat's description of the Holy Places, which he visited in A.D. 1173. The MS. is numbered 17 E. D. Clarkii, Uri, CLV. From folio 36 verso, I translate the following :—

"*The Aksâ Mosque.*—In this mosque is the Mihrâb of Omar ; the Franks have not done it any damage.

"On the roof I read the following inscription :—

"'In the name of Allah the Compassionate, the Merciful. Praise to Him who brought His servant (Muhammad) by night from the Masjid

al Harâm (at Mekkah) to the Masjid al Aksâ (at Jerusalem), on the precincts of which we invoke a blessing. May Allah give aid to His servant and vicar Ali ibn Abu-l Hasan ad Dhâhir li Izâzi dîn Allah, the Commander of the Faithful—Allah's benediction be upon him and upon his immaculate forefathers, and upon his beneficent sons! For the restoration of this same Dome and its gilding hath given command our illustrious and dear lord, the chosen servant of the Commander of the Faithful and his devoted servant, Abu-l Kâsim Ali ibn Ahmad—Allah give him aid and protection! The whole of this (building) was accomplished by the last day of the month Dhû-l Kaádah, of the year 426: he who (superintended) the building of the same being 'Abd Allah ibn al Hasan of Cairo the architect.'

"The inscription, as well as the porticoes, are all done over with mosaics of gold, and these the Franks have not touched or in any way damaged."

With a view of the possible recovery of this interesting inscription, I add a copy of the Arabic text as given by Ali of Herat in the MS. of the Bodleian. I should add that M. C. Schefer, in his extracts from Ali of Herat's work given in the Journal of the "Société de l'Orient Latin," tome i, p. 587, has printed a slightly different version of this same inscription taken from a MS. of Ali of Herat, in his own collection :—

[Bodley MS. Uri, CLV., folio 37 recto.]

بسم الله الرحمن الرحيم سبحان الذى اسرى بعبده ليلا من
المسجد الحرام الى المسجد الاقصى الذى باركنا حوله نصر
من الله لعبد الله و وليه على بن ابى الحسن الامام الظاهر لاعزاز
دين الله امير المومنين صلوات الله عليه و على اباءه الطاهرين
و ابناءه الاكرمين امر بعملها و هى هذه القبة واذهابها سيدنا
العزيز الاجل صفى امير المرمنين و خالصه ابو القاسم على بن
احمد ايده الله و نصره وكمل جميع ذلك الى سلخ ذى
القعده سنة ست و عشرين واربع ماية صنعه عبد الله بن الحسن
المصرى المزوق

GUY LE STRANGE.

KIRJATH-SEPHER.

SURELY we ought not to let this place go unexplored, after the suggestion made by Professor Sayce in the August number of the "Contemporary Review." The recent discovery of cuneiform tablets at Tel el-Amarni, in Egypt—consisting of despatches to Amenophis IV and his predecessor (18th dynasty), from their agents in Palestine—proves that there was active literary intercourse from one end of the civilised East to the other, in the century before the Exodus, and that the medium of literary correspondence was the Babylonian language and script. There were libraries in Canaan in those days, and some of the books were in cuneiform characters. They were of clay, which would not perish like papyrus, and they could be read if they were discovered. Professor Sayce would be hopeful of finding such records at Tyre and at Kirjath-Sepher.

Kirjath-Sepher is translated as Book-town. In the Euphrates valley there was a city of corresponding name—Sippara—and it has justified its designation by yielding (within the present decade) many ancient records.

Sippara was a seat of sun-worship, and its temple contained hundreds of apartments. The legend said that Khasis-adra, the Chaldean Noah, here buried the records of the ante-diluvian world; and at any rate a great library was founded here as early as the remote days of Sargon I, of Assyria (B.C. 3750).

Some people from Sippara were transported to Samaria when the ten tribes were carried away captive, and the city is mentioned in the Bible under the name of Sepharvaim. This is a Hebrew dual form, signifying the "two Sipparas," and, accordingly, the ruins are found on both sides of the stream—at Abu Hubba and at Agadé. I find reason to think that the duality was symbolical, and was important in the astro-religious system, the two sites standing for the two equinoxes. We may compare with these twin temples, or towers, the mound of *Birs Nimroud* and the *Babil* mound on the opposite side of the stream; we may compare again the two "brother" peaks of Delphi, of the like significance, perhaps, in the Greek mythos, which was, at bottom, the same as the Chaldean.

The temple at Sippara was called Beth-el (House of God)—House of the *Sun*-god, apparently, since the expression "Shamash of Sepharvaim" occurs in the cuneiform texts.[1] We might have expected to find Nebo rather—the god of writing—especially as the temple at Borsippa was sacred to him. The first and principal records preserved in the temple would be astronomical records—called "tablets of destiny," because the fixed laws of the heavens governed the fate of men—such records being of prime importance in an astro-religious system. Accordingly, we find

[1] In 2 Kings, xvii, the men of Sepharvaim made images of Ana-melech and Adra-melech, and burnt their children in the fire.

that the treasures of the library of Sargon included a great work on astronomy and astrology in seventy-two books (72, it may be remarked, is an oft-recurring number in mythic writings, because $5 \times 72 = 360$, the number of degrees in the circle of the heavens, and of days in the ancient year). The priestly guardians of these writings, however, being the scribes of the people, would bye-and-bye be entrusted with the care of the contracts, &c., which they drew up; and so Mr. Rassam discovered, at this site, thousands of tablets relating to fiscal, legal, and commercial transactions.

These, then, are the kinds of records which we may hope to find at Kirjath-Sepher in Judea. The place was very likely the site of a temple of Nebo, or some equivalent god of writing, and the records preserved would be, first of all, astro-religious, and then commercial.

Kirjath-Sepher is otherwise called Kirjath-Sannah, and also Debir. It was one of the Canaanitish towns taken by Joshua, and the worship would relate to that early time; the tablets would belong to the pre-Israelitish inhabitants. In "Fresh Light from the Monuments," Professor Sayce gives the name *Debir* as meaning sanctuary, and compares it with Kadesh, "the holy city." In the "Survey Memoirs" (iii, 402) we are told that "the name has the meaning 'back,' due to its position on the ridge." I have always supposed that the later name, Debir, had the same meaning as the earlier name, Sepher. Dabar, from the same root, signifies a word, speech, saying, command, law, oracle, &c.; and Furst, under the word Debir, allows that it may mean Book-town, the same as Kirjath-Sepher. It comes from *Dabar* (דָּבַר) to speak. Apparently, the root-meaning of Sepher and Sanneh is connected with the idea of piercing and being pointed, like thorns or like crags, and may have had reference to the conical hills on which Nebo temples are built, or to the stylus used in writing. The west or hinder part of the temple was called Debir, and in that connection the word is said to mean hinder; but if the sacred books were kept on that side, the name may perhaps have reference to the writings.

Kirjath-Sepher is represented now by the village of *edh Dhâberîyeh*, south-west of Hebron (*see* Memoirs iii, 402, and Armstrong's "Names and Places," O. T.). The description of it is not unpromising for the investigator—"ancient materials," "an old tower," "a sacred place," and "houses over caves."

GEORGE ST. CLAIR.

MEETING OF THE GENERAL COMMITTEE.

THE Annual Meeting of the General Committee was held at the offices of the Fund, 1, Adam Street, Adelphi, on July 3rd. Chairman, Mr. James Glaisher.

After the Honorary Secretary had read letters from various gentlemen

regretting their inability to attend the meeting, the Report of the Executive Committee for the year was read as follows :—

My Lords and Gentlemen,—

Your Committee elected at the last General Meeting, on June 14th, 1887, have, on resigning their office into your hands, to render an account of their administration during the past year.

1. The Committee have held twenty-two meetings during the year.
2. The work of exploration has been carried on during the last year by Herr Schick at Jerusalem, and by Herr Schumacher in other parts of the country.

We had on this occasion of last year to announce the deeply interesting discoveries made at Saida of sarcophagi and rock-cut tombs. We have been enabled to publish a more detailed account of these monuments, partly from Professor Hayter Lewis, who was allowed to see them at Constantinople, partly from the "Revue Archéologique," and partly from a journal published in Arabic at Beyrout. Hamdi Bey himself has not yet published any photographs or further details, which it is hoped may shortly be produced.

Several very valuable discoveries have been made in Jerusalem during the year :

(1) The ancient wall at the Jaffa Gate has been proved to be built inside the modern wall, which has no foundations, and stands upon the earth.

(2) One or two small points have been discovered as to the second wall, but its course has not been yet determined. Herr Schick will lose no opportunity of investigating this most important point.

(3) Herr Schick has discovered a Byzantine pavement, which in the opinion of most can be no other than the open space paved and adorned by Constantine in front of his group of Churches. It is of less importance, but it is still interesting to ascertain that on this pavement stood the "Vaulted Street," long lost, described in Crusading accounts.

(4) The most important discovery, however, is that of the Pool of Bethesda :

An apparently uninterrupted chain of evidence from the year A.D. 333 to the year 1180 speaks of the Probatica Piscina as near the Church of St. Anne. The place spoken of, recently believed to have been only a mediæval and traditional site, is said by the earliest writers to have formerly had five porches, then in ruins. Nothing was known of the Pool described by those writers until quite recently, when certain works carried on by the Algerian monks laid bare a large tank, or cistern, cut in the rock to a depth of 30 ft. It lies under, but not immediately under, a later building, a church with an apse at the east end. The cistern is 55 feet long from east to west ; north and south it measures 12½ feet in breadth. A flight of 24 steps leads down into the pool from the eastern scarp of rock.

Now, the first requisite for the site of the pool of Bethesda is that it

should be possible to have five porches. The only way (as shown by Sir Charles Wilson in his notes to the new edition of the "Bordeaux Pilgrim") in which this requisite could be satisfied is that the pool should be what is called a twin pool, such as that discovered close to the Convent of the Sisters of Sion—that is to say, two pools lying side by side, having one portico on each side of the four sides thus formed, and one between them on the wall of separation.

The discovery of the pool at the church of St. Anne did not at first admit of this possibility. It seemed, therefore, to be of interest chiefly as the re-discovery of a mediæval site. But Herr Schick now reports that he has found a continuation of the pool, or, rather, a sister pool, lying end to end, 64 feet long, and of the same breadth as the first.

We are, therefore, able to make out a reasonably strong case for identifying the newly-discovered twin pool with the Pool of Bethesda.

(1) It is undoubtedly the pool pointed out by all the writers, from the 4th to the 12th centuries inclusive, as the Piscina Probatica, around which other traditions gathered; as that it was the birthplace of the Virgin Mary.

(2) The five porticoes spoken of by the "Bordeaux Pilgrim" as being then in ruins, could very well have stood here.

In other words, the historical evidence in favour of this site is as strong as that which connects the Holy Sepulchre with the site adopted by Constantine.

In the minds of most, therefore, it will be probably acknowledged that we have here none other than the ancient Pool of Bethesda.

Herr Schumacher continues to send us valuable notes and papers. He reports antiquities and ruins uncovered in progress of excavation at many points at Zimmârîn (now called Zicron-Jacob), at Tiberias, at 'Akka, at Rushmia, at Lejjûn, and elsewhere, all tending to prove that the antiquarian wealth of Palestine is below the surface not above it.

We received, in the autumn of last year, from Mr. Flinders Petrie, a loan collection of ethnological casts, representing the races of Syria and other countries, prepared from the sculptures at Thebes. These casts were shown at the Society's exhibition at the South Kensington Museum. A small grant having been made by the British Association towards the expenses of the work, the casts were taken last winter at Thebes by paper moulds; the series was prepared from the moulds in England; and photographs of all the casts were taken. The greater number of the casts represented the Syrian races, with whom the Egyptian monarchs were constantly at war. The characteristic faces of the Hittites, the Amorites, the Arabs, the Judeans, and the inhabitants of many towns of the North of Syria, could here be studied from contemporary portraits; and, moreover, from such a number of examples, that the general type could be seized without the uncertainty of errors of the sculptor. One most prominent result in Palestine was the resemblance of the Judeans to the Amorites (agreeing with the kings of Jerusalem and Hebron being kings of the Amorites, and Ezekiel declaring to Jerusalem

"thy father was an Amorite"), the faces of the former being of exactly the same type of that of the latter, only rather more refined and subtile of expression. Besides these there were sculptures of many other races; the Southern Arabians, who seem to have originated the Egyptian stock; the Libyans, the fair tribes of North Africa, of Aryan type; the Greeks, Sardinians, Philistines, and allied peoples; and some negro races. A mass of trustworthy material was here brought to hand in the most convenient form, for study by the historian and ethnologist. The collection remained on exhibition at South Kensington until the end of the year.

We have translated and presented to subscribers, during the year, Herr Schumacher's "Jaulân," an account of his survey and its results. This we have so printed as to be detached from the *Quarterly Statement*, and bound in a volume similar to Captain Conder's "Tent Work."

We have also, ready to be issued, Herr Schumacher's "Pella," an account of a survey and description of that city and its surroundings. This is also illustrated in the same style, and it will be forwarded to every subscriber who signifies his wish to have it.

We have to thank Mr. Greville Chester for his "Journey from Iskanderûn to Tripoli;" Mr. Guy le Strange for a paper on the Arabic geographers; Mr. St. Clair, Mr. Birch, Mr. Laurence Oliphant, and Dr. Hutchinson, for notes on various points. Major Conder has again proved himself a steady friend and supporter, by contributing many valuable papers.

We have also in the press a paper by the Rev. Dr. Post, of the Medical College, Beyrout, giving an account of the botanical results of a journey to Eastern Palestine. They will be issued in October.

The Enquiry into the Manners and Customs is also in Dr. Post's hands, and he will begin to forward replies on his return to Beyrout in the autumn.

We have at length completed the long-promised "Names and Places," containing all the Old and New Testament names, with their modern equivalents. The whole forms a volume which is of the greatest use to Biblical students.

We are preparing for press, and shall shortly issue, the first volume of a work similar in appearance and size to the "Survey of Western Palestine." It will consist of three volumes with an Index, all abundantly illustrated with maps, drawings, plans, &c.

(1) The first volume will be Captain Conder's "Survey of Eastern Palestine," as far as that has been undertaken.

(2) The second volume will consist of M. Lecomte's beautiful drawings, about 900 in number, made for M. Clermont-Ganneau's mission of 1873–1874, with some descriptive text.

(3) The third will contain Mr. Chichester Hart's "Natural History of the Wâdy 'Arabah."

There will be 500 copies, and no more, of the work. The price of subscription is £7 7*s.* for the first 250 copies, and £12 12*s.* for the next 250. The agent, Mr. A. P. Watt, has already received a sufficient

number of promises to warrant the Committee in authorising the commencement of the work.

Mr. Harper, one of the Executive Committee, is engaged upon a popular work, which, though it will not be published by us, will have our hearty good wishes. It is an account of the light thrown upon the Bible by all the recent excavations and surveys. We have placed at his disposal all the assistance in our power.

The Balance Sheet for the year 1887 is as follows :—

BALANCE SHEET FOR THE YEAR ENDING 31st DECEMBER, 1887.

Receipts.	£	s.	d.
Balance, 31st December, 1886	322	11	0
Donations, Subscriptions and Lectures	1,572	9	11
Maps and Memoirs ..	280	10	4
Books..	369	10	3
Photographs.. ..	5	1	5
	£2,550	2	11

Expenditure.	£	s.	d.
Management	407	5	7
Exploration	647	14	0
Printers and Binders ..	942	4	0
Maps and Memoirs ..	337	3	7
Balance, December 31st, 1887.. ..	215	15	9
	£2,550	2	11

The Secretary, Mr. Walter Besant, who had for some time given his services gratuitously to the Society, has found it impossible to continue them, and has, therefore, resigned, but he has consented to remain as Hon. Sec., and we have appointed Mr. George Armstrong as Assistant Secretary. The management expenses of the Society are kept down by this change, and it is hoped that the efficiency of the office will not be in any way lowered.

We have to propose as members of the General Committee the following :—

General Sir F. Goldsmid, K.C.S.I.,
Professor Greenwood, of "The Owens College," Manchester,
Halford J. MacKinder, M.A., F.R.G.S.,
Rev. E. W. Bullinger, D.D.
Rev. George E. Post, M.D., M.A., of the Medical College, Beyrout.

In conclusion, we have to assure the General Committee and our Subscribers generally that all the steps necessary to ensure continuation of the work on its present lines have been taken—that is say, no opportunity will be lost of making researches and following up discoveries in the Holy City, and every possible agency will be brought to bear in the prosecution of research in the Holy Land itself and the countries which surround it.

We have to express our best thanks to the local Hon. Secretaries, and to all who have helped to extend the knowledge of our existence and

aims, and even claims, to larger and more general support. The income of the Society is barely equal to the demands upon it, and while we are continually paying off the liabilities caused by the printing of papers and results, more reports continually arrive which call for immediate publication.

It was proposed by Mr. Guy le Strange, and seconded by Professor Hull, that the Report be received and adopted. This was carried unanimously.

It was proposed by Professor Hayter Lewis, and seconded by Mr. Morrison, that the following gentleman be elected members of the General Committee :—

General Sir F. Goldsmid, K.C.S.I.,
Professor J. G. Greenwood,
Halford J. MacKinder, Esq., M.A., F.R.G.S.,
Rev. E. W. Bullinger, D.D.
Rev. George E. Post, M.A., M.D.

This was carried unanimously.

It was proposed by Mr. Maudslay, and seconded by Mr. Guy le Strange, that the Executive Committee be re-elected, with the addition of Mr. Walter Besant. This was carried unanimously.

The following paper was read by Professor Hull :—

Geological investigation has made considerable progress in the regions adjoining Palestine, both to the north and west and south, since the publication of the "Geological Memoir on Arabia Petræa and Palestine."

1. The work of Dr. Carl Diener, of Vienna, entitled "Grundlinien der Physischen Geographie und Geologie von Mittel Syrien," Wien, 1886. This is certainly the most important work which has yet appeared on the geology of the Lebanon, as the author has not been content merely with an outline of the formations, but has produced a detailed map showing the geological structure of the region lying between Beirût and Damascus, and reaching as far south as the Lake of Merom.

2. Then there are the excellent papers of Herr Schumacher on the region of the Jaulân and part of the Haurân, extending from the Jordan Valley to the neighbourhood of Damascus, accompanied by an excellent topographical map in which the old volcanic craters and lava-streams are clearly delineated ; together with other physical phenomena of that remarkable region.

3. Then there is the remarkable work of Mr. Doughty on "Arabia Deserta," in two volumes, in which it is shown that the great Arabian Desert, lying to the east of Moab and Edom, is largely occupied by extinct volcanic cones and lava-streams, similar to those which are found in the Jaulân and Haurân. There can be little doubt but that these volcanoes were in active eruption during the same period as those in Northern Palestine and Syria, and that they died out and became extinct at, or about, the same epoch, so that it would appear that the whole

region ying to the east of the Jordan-Arabah Valley, and stretching from the base of Hermon for several hundred miles into the Arabian Desert, was the scene of active volcanic operation in the Pliocene, and perhaps in the Post-Pliocene epoch.

It was proposed by Professor Hayter Lewis, and seconded by Dr. Ginsburg, that the best thanks of the General Committee be awarded to Mr. Walter Besant on his resigning the office of Secretary.

It was proposed by Mr. Maudslay, and seconded by Professor Hull, that the best thanks of the Committee be passed to the Chairman, Mr. James Glaisher.

The proceedings then terminated.

NEHEMIAH'S WALL AND THE ROYAL SEPULCHRES.

The following is an abstract of a Paper read by Mr. George St. Clair, Lecturer to the Society, at the recent meeting of the British Association at Bath :—

The topography of Ancient Jerusalem has been difficult to make out, and the site of the sepulchres of the kings of Judah remains unknown. But the problem has been simplified by recent excavations. We now, for the first time, know the contours of the rock and the features of hill and valley before the 80 ft. of *débris* began to accumulate.

The Akra of the Maccabees being identified, it is seen how by the recorded filling up of the Asmonean valley the two parts of the Lower City became joined into one *crescent*, lying with its concave side towards the Upper City, according to the description of Josephus.

The investigations of Sir Charles Warren show that the Temple must be placed on the summit of Moriah, with Solomon's palace south-east of it, leaving a vacant square of 300 ft., where now we leave the south-west corner of the Harem Area.

From the south-east corner of the Haram enclosure extends the wall of Ophel, discovered by Warren, running 76 ft. to the south, then bending toward the south-west. Further, it is found that from the Gate of the Chain, in the west wall of the Haram enclosure, a causeway, with complicated structures, extends westward towards the Jaffa Gate.

Having this groundwork we may proceed to place the walls :—

The 3rd wall, built by Agrippa, does not concern us.

As regards the 2nd wall, it suffices for the present purpose to adopt the line of Herr Conrad Schick.

The 1st wall was the wall of the Upper City. On the northern side it ran from the Jaffa Gate to the Haram wall. The uncertainty has been about its southern portion. The author gives, on a diagram, the line he has been led to adopt ; and then shows that it corresponds in detail with the descriptions in the Book of Nehemiah.

Taking Nehemiah's night survey; then the consecutive allotments of work assigned to those who repaired the walls; and thirdly, the points successively reached and passed by the processionists when the walls were dedicated—it is shown that every mention of a gate or a tower, the number and the order of salient and re-entering angles, and every other note of locality, exactly agree with the course of the walls as suggested.

This course, moreover, involves the least possible variation from the present line of walls, and more in the way of addition than of deviation.

The hypothesis commending itself as true, by corresponding minutely with Nehemiah's descriptions, by tallying exactly with other Biblical references, and by meeting all the requirements of the case, it has this important practical bearing, that it indicates the site of the royal sepulchres, of the stairs of the City of David, of "the Gate between two walls," &c., and shows, incontestably, that Zion included the eastern hill.

In the author's plan, exhibited, the south wall of the Upper City crosses the ridge of the hill in the line of the present wall, and then makes a bay up the Tyropœan.

A cross wall, to the Ophel hill (also in the line of the present wall), is the wall of the Pool of Shelah, and terminates in steps, ascending and curving round towards the Triple Gate, which is regarded as the Water Gate. The royal sepulchres are on the north side of the wall of Shelah, excavated in the hill of Ophel, the entrance being close to the south-west corner of the buildings which stand out to the south of the Double Gate.

HARRISON AND SONS,
PRINTERS IN ORDINARY TO HER MAJESTY,
ST. MARTIN'S LANE, LONDON.

LIST OF DONATIONS AND SUBSCRIPTIONS.

FROM SEPTEMBER 13TH, 1887, TO DECEMBER 12TH, 1887, INCLUSIVE.

a denotes Annual Subscriber.

*** If any omission or mistake be observed in the following lists, the Secretary will be very glad to be informed of it, and will rectify the error in the next *Quarterly Statement*.

	£	*s.*	*d.*
*a*Rev. P. L. D. Acland	1	1	0
*a*Rev. Dr. H. Adler	0	10	6
*a*G. Aimer, Esq.	0	10	6
*a*C. S. Alexander, Esq. ..	1	1	0
*a*Miss Alford	1	0	0
*a*Rev. W. H. Askwith	1	1	0
*a*T. H. Aston, Esq.	0	5	0
*a*Miss Austin	0	10	6
*a*Rev. L. R. Ayre	1	1	0
*a*Miss Back	1	1	0
*a*Rev. W. C. Badger	0	10	6
*a*Mons. W. Barbey	20	0	0
*a*Rev. C. W. Barclay	0	10	0
*a*Rev. T. Barclay	1	1	0
*a*T. Barlow, Esq.	1	1	0
*a*W. Barnell, Esq., J.P. ..	1	1	0
*a*A. C. Bartholomew, Esq. ..	0	10	6
*a*Rev. Ll. J. Montfort Bebb ..	0	10	6
*a*Rev. T. O. Beeman	0	10	6
*a*W. H. Beeman, Esq... ..	0	10	6
*a*E. Beveridge, Esq.	1	0	0
*a*Rev. W. C. Bishop	1	1	0
*a*Rev. C. E. Block	0	10	6
*a*Rev. A. C. Blunt	1	1	0
*a*Miss Bond	0	10	6
*a*Rev. J. G. Bourne	1	1	0
*a*Cyrus Braby, Esq.	0	10	6
*a*W. H. Bramwell, Esq. ..	0	13	0
*a*Rev. W. G. Bridges	0	10	6
*a*Rev. J. S. Broad	0	10	6
*a*Dr. Brodie	1	0	0
*a*J. A. Brooke, Esq., J.P. ..	2	2	0
*a*Rev. J. Browell	1	1	0
*a*W. W. Brown, Esq... ..	0	10	6
*a*Rev. C. G. Browne	0	10	6
Carried forward	£46	19	6

	£	*s.*	*d*
Brought forward	46	19	6
*a*The Very Rev. Canon Brownlow	0	10	6
*a*Rev. W. Bruce	0	10	6
*a*Rev. C. Burrough	1	1	0
*a*Rev. A. J. J. Cachemaille ..	0	10	6
*a*Rev. W. B. Caparn	0	10	6
*a*Miss Carr	1	1	0
*a*Mrs. Carver	1	1	0
*a*Rev. W. Champernowne ..	1	1	0
*a*Rev. C. G. Chittenden ..	1	0	0
*a*J. C. Church, Esq.	0	10	6
*a*C. E. Clinch, Esq.	1	1	0
*a*Rev. C. C. Coe	0	10	6
*a*Sir John Coode	1	1	0
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*a*Miss Compton..	0	10	6
*a*C. J. Cooper, Esq.	1	1	0
*a*W. F. S. L. Corry, Esq. ..	0	10	6
*a*Gen. Sir A. Cotton	0	10	6
*a*S. Cowan, Esq.	1	1	0
*a*Dr. J. E. Cranage	1	1	0
*a*Rev. H. Crane	0	10	6
*a*F. Craven, Esq.	0	10	6
*a*C. Crawford, Esq.	2	0	0
*a*A. Crossfield, Esq.	0	10	6
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*a*Mrs. Cruikshank	1	0	0
*a*James Dangerfield, Esq. ..	1	1	0
*a*E. B. Dawson, Esq.	1	1	0
*a*H. Dobinson, Esq.	0	10	6
*a*Jonathan Dodgson, Esq. ..	0	10	6
*a*Rev. H. Douglas	1	1	0
*a*Rev. W. Earl	0	10	6
*a*W. Ellice, Esq.	4	0	0
*a*Rev. J. H. Evans	1	1	0
Carried forward	£78 1	1	6

	£	s.	d.
Brought forward	78	1	6
aMiss Eve	1	1	0
aW. Q. Ewart, Esq.	1	0	0
aC. F. Fellows, Esq.	5	0	0
aW. Ferguson, Esq.	1	1	0
aRev. W. Flaherty	0	10	6
aDr. Flint	0	10	6
aJohn Forrester, Esq.	1	1	0
aRev. T. H. Freer	1	1	0
aMrs. George	0	10	0
aE. W. Gere, Esq.	0	10	6
aJ. G. Gibbs, Esq.	1	1	0
aRev. A. G. Girdleston ..	0	10	6
aLord Gort	1	0	0
aR. Govett, Esq.	1	0	0
aJ. E. Graham, Esq.	0	10	6
aRev. H. J. Graham	0	10	6
aThomas Grant, Esq.	1	1	0
aN. E. Green, Esq.	0	10	6
aRev. W. G. Greenstreet ..	0	10	6
aRev. E. I. Gregory	0	10	6
aJ. V. Gregory, Esq.	0	10	6
aW. Cust Gwynne, Esq., M.D.	0	10	6
aGen. Haig	1	0	0
aRev. A. H. Hamilton	0	10	6
aW. Hartley, Esq.	0	10	6
aMiss Harris	0	10	6
aJ. F. Hayward, Esq.	1	0	0
aC. Heaton, Esq.	1	1	0
aRev. J. R. Hewitson	0	10	6
aMrs. Hickman	1	1	0
aH. S. Hird, Esq.	0	10	6
aRev. Canon Hoare	0	10	6
aR. G. Hobbes, Esq.	0	10	6
aRev. J. P. Hobson	0	10	6
aMiss A. Hodgson	0	10	6
aE. T. Holden, Esq.	2	2	0
aMiss S. Blount Hopkins ..	0	10	0
aJ. Howatt, Esq.	0	10	6
aH. A. Hubbersty, Esq. ..	1	1	0
aMrs. Hughes ('85, '86 and '87)	3	3	0
aMrs. Hutchinson	1	1	0
aJ. L. Jardine, Esq.	0	10	6
aRev. Canon Jarratt	1	0	0
aRev. J. T. Jeffcock	1	1	0
aRev. A. P. Johnman	0	10	0
aFrank Jones, Esq.	0	10	6
aA. W. Jones, Esq.	5	0	0
aP. B. Junor, Esq.	1	0	0
aRev. E. Just	0	10	6
aRev. J. P. Kane	0	10	6
aRev. A. Kennion	0	10	6
aT. J. Kent, Esq.	2	2	0
aR. Kerr, Esq.	0	10	6
aW. Ketchen, Esq.	0	10	6
aA. H. Kilburn, Esq.	0	10	6
Carried forward	£130	14	0

	£	s.	d.
Brought forward	130	14	0
aA. Lairg, Esq.	0	10	6
aSidney Lawrence, Esq. ..	1	1	0
aMiss Leach	0	10	0
aR. E. Leader, Esq.	0	10	6
aRev. J. A. Leicester	1	1	0
aHoward Lloyd, Esq.	1	1	0
aRev. W. Loch	1	1	0
aMiss Lockwood	0	10	6
aF. Longden, Esq., J.P. ..	0	10	6
aRev. C. P. Longhand ..	0	10	0
aMiss Macaulay	0	10	6
aJohn McGrigor, Esq.	3	0	0
aJ. McMichael, Esq.	0	10	6
aRev. J. F. Macrae	1	0	0
aRev. F. A. F. Maitland ..	1	1	0
aGen. Maitland	2	2	0
aC. M. Marchant, Esq. ..	1	1	0
aRev. J. Marshall	1	1	0
aMiss Martin	1	0	0
aW. J. Maum, Esq.	0	10	6
aRev. Dr. Maxfadyen	0	10	6
aMrs. Maxwell	1	1	0
aHenry Mellars, Esq.	0	10	6
aR. M. Miller, Esq.	0	10	6
aRev. W. H. M. Milner ..	0	10	6
aMiss H. Mills	1	1	0
aCaptain Moody	0	10	6
aJ. Mordy, Esq.	0	10	6
aW. W. Morrell, Esq.	0	10	6
aJ. Morris, Esq.	1	1	0
aJames Morton, Esq.	1	1	0
aRev. Dr. Moulton	1	1	0
aR. B. Mummery, Esq. ..	0	10	0
aRev. Canon Musgrave ..	0	10	0
aMiss Muspratt	0	10	6
aRev. F. P. Napier	1	1	0
aL. D. Nathan, Esq.	0	10	6
aG. H. Nevinson, Esq.	1	0	0
aF. Newell, Esq.	0	10	6
aH. A. Norman, Esq.	1	1	0
aRev. H. Parsons	0	10	6
aRev. D. Paul	1	0	0
aMrs. Pearce	0	10	0
aJ. Penhall, Esq.	1	1	0
aE. Peutress, Esq.	1	1	0
aG. G. Playfair, Esq.	1	1	0
aRev. H. C. Powell	0	10	6
aCol. Powlett	1	1	0
aA. Priestman, Esq.	0	10	6
aRev. E. S. Prout	0	10	6
aRev. Dr. Ramsden	0	10	6
aSurgeon-Gen. Ranking ..	1	1	0
aRev. Dr. Reynolds	0	10	6
aRev. C. L. Reynolds	0	10	6
aRev. Dr. Richards	0	10	6
Carried forward	£175	7	6

	£	s.	d.
Brought forward	175	7	6
*a*H. Richardson, Esq.	1	1	0
*a*Rev. G. Richardson	0	10	6
*a*F. Ridoutt, Esq. ..	0	10	6
*a*James Roberton, Esq. ..	1	0	0
*a*W. Robinson, Esq.	1	1	0
*a*Miss Mary Eliza Rogers ..	0	10	0
*a*J. A. Rolls, Esq. ..	0	10	6
*a*C. S. Roundell, Esq.	0	10	6
*a*Rev. G. S. Rowe	1	1	0
*a*Rev. L. Rumsey	0	10	6
*a*Rev. Dr. Russell	0	10	6
*a*Salisbury Clerical Library ..	0	10	6
*a*C. Samuel, Esq.	1	1	0
*a*J. J. Sanders, Esq.	1	1	0
*a*J. Saunders	0	10	6
*a*T. Scriven, Esq.	0	10	0
*a*G. Shrewsbury, Esq.	0	10	0
*a*W. Shiels, Esq.	0	10	0
*a*Mrs. Simpson	2	0	0
*a*Col. R. Salisbury Simpson ..	1	1	0
*a*J. Doyle Smithe, Esq., F.R.G.S.	0	10	6
*a*Col. E. Smyth	1	1	0
*a*A. W. Smyth, Esq.	0	10	6
*a*Rev. J. G. Smythe	2	2	0
*a*Rev. H. Burrows Southwell ..	1	1	0
*a*Alfred Sparkes, Esq... ..	0	10	6
*a*St. Bees College	1	1	0
*a*W. Standering, Esq.	1	1	0
*a*Miss Stephen	0	10	0
*a*John Sterry, Esq.	1	1	0
*a*F. J. Stevens, Esq.	1	1	0
*a*Rev. J. A. Stewart	0	10	6
*a*W. G. Stewart, Esq.	0	10	6
*a*Mark Stirrup, Esq.	0	10	6
Carried forward	£202	18	6

	£	s.	d.
Brought forward	202	18	6
*a*Eugene Stock, Esq.	0	10	6
*a*Miss Taylor	1	1	0
*a*J. W. Taylor, Esq.	1	1	0
*a*Miss Thomas	0	10	6
*a*James Thompson, Esq. ..	0	10	6
*a*J. M. Thorne, Esq.	0	10	6
*a*Rev. R. A. Tindall	0	10	6
*a*Mrs. Tremlett (1887) ..	0	10	6
*a*Rev. E. J Tyser	1	1	0
*a*Rev. G. H. Vane	1	1	0
*a*Rev. F. S. Stooke-Vaughan ..	0	10	0
*a*T. J. Waddingham, Esq. ..	1	1	0
*a*J. E. Wade, Esq.	1	0	0
*a*Wallace Walker, Esq. ..	1	1	0
*a*J. Wates, Esq.	0	10	6
*a*D. M. Watson, Esq.	1	1	0
*a*J. H. Weldon, Esq.	0	10	6
*a*W. G. West, Esq.	1	1	0
*a*A. Westwood, Esq.	0	10	6
*a*Rev. J. W. Whigham ..	0	10	6
*a*C. White, Esq.	0	10	6
*a*J. R. Wigham, Esq.	1	0	0
*a*Rev. Dr. Wickes	0	10	6
*a*Rev. Prof. Williams	0	10	6
*a*V. A. Williamson, Esq. ..	1	1	0
*a*Mrs. Wilson	0	10	6
*a*G. B. Wilson, Esq.	0	10	6
*a*W. Winsford, Esq. . ..	0	10	6
*a*A. J. Woodhouse, Esq. ..	2	2	0
*a*Rev. Canon Woodruff ..	1	1	0
*a*Sidney Woolf, Esq.	1	1	0
*a*Mrs. J. W. Wright	1	1	0
*a*Rev. C. H. H. Wright, D.D...	1	0	0
*a*Mrs. Baring Young	1	1	0
Total ..	£230	11	6

SUPPLEMENTARY LIST.—December 13th to December 20th.

	£	s.	d.
*a*J. O. Johnston	0	10	6
*a*Rev. C. E. Ranken	0	10	6
*a*Rev. J. Rowlands	1	0	0
*a*H. E. Salter, Esq.	0	10	6
*a*Miss Mulholland..	1	1	0
*a*Rev. F. Stewart	0	10	6
*a*Rev. E. Flecker	0	10	0
*a*Mrs. Johnstone	1	1	0
*a*Rev. J. Marshall (Don)..	0	12	0
*a*G. Strathairn, Esq.	1	1	0
*a*W. Bowers, Esq...	0	10	6
*a*J. Scattergood, Esq.	1	1	0
*a*G. Henry, Esq.	0	10	6
*a*J. Lloyd, Esq., Junr.	1	1	0
*a*Rev. G. C. Baxter (1884 to 1887)	2	2	0
*a*Thos. Roberts, (1887)	0	10	6

LIST OF SUBSCRIPTIONS.

SUMMARY.

	£	s.	d.
Donations and Subscriptions	230	11	6
Local Societies	84	6	6
Lectures	114	0	6
Maps and Memoirs	11	4	1
Books	19	7	4
	£459	9	11

LOCAL SOCIETIES.

(Acknowledged in detail under special heading.)

	£	s.	d.
Aberdeen	11	12	6
Adelaide (Australia)	3	10	0
Belfast	1	0	0
Brighton	5	15	6
Burnley	1	10	6
Chichester	1	3	6
Cork	6	1	0
Falmouth	13	3	6
Lichfield	7	19	0
Manchester	30	9	0
Salisbury	0	10	6
Scarborough	0	10	6
Whitby	1	1	0
	£84	6	6

ABERDEEN LADIES' ASSOCIATION.

December 13.—By cash .. .. £11 12*s.* 6*d.*

		£	s.	d.
May	1.—Wm. Anderson, Murtle Cottage	0	2	6
July	8.—Thomas Hutchison, Esq., Ingleside, Cults ..	0	10	6
,,	20.—Miss Fenwick Bisset, 11, Albyn Terrace ..	2	0	0
Nov.	29.—Col. Kirby, 15, Dee Street, Aberdeen ..	1	1	0
,,	29.—James Stephen, R.N., 155, Crown Street ..	0	10	6
,,	29.—David Allan, Esq., 122, Union Street ..	0	10	6
,,	29.—William Hunter, Esq., 14, Adelphi	0	10	6
,,	29.—David Mitchell, Esq., 24, Adelphi	0	10	6
,,	29.—Stodart J. Mitchell, Esq.	0	2	6
,,	29.—Alex. Webster, Esq., 42, King Street ..	0	10	6
,,	29.—Mrs. Duthie, 20, Albyn Place	0	10	0
,,	29.—Miss Spence, 32, Albyn Place	0	10	6
,,	29.—Miss Gordon, 35, Albyn Place	0	5	0
,,	29.—Mr. and Mrs. Doak, 15, Queen's Road ..	0	10	6
,,	29.—Mrs. Simpson, 8, Golden Square	0	5	0

LIST OF SUBSCRIPTIONS.

	£	s.	d.
Dec. 6.—Mrs. Lumsden, Ferryhill House	0	10	6
„ 6.—J. B. Nicol, Esq., Inverdee, Cults	0	10	6
„ 6.—Rev. John Calder, New Manse, Old Aberdeen	0	5	0
„ 6.—Rev. Wm. Milligan, D.D., University, Old Aberdeen	0	10	6
„ 6.—Rev. Prof. Forbes, D.D., 3, Westfield Terrace	0	10	0
„ 6.—M.	0	2	6
„ 6.—Miss Fanny Davidson, Inchmarlo Cottage ..	0	10	6
„ 6.—Rev. George Smith, Queen's Cross Free Church	0	10	6

ADELAIDE (AUSTRALIA).

December 12, 1887.—By cash .. .. £3 10*s.*

	£	s.	d.
Rev. F. W. Cox	0	10	0
Rev. S. Mead	0	10	0
The Right Rev. Bishop Kennion	0	10	0
Rev. W. Jones	0	10	0
F. Halcomb, Esq.	0	10	0
Rev. S. Hebditch	0	10	0
Rev. E. Rorke	0	10	0

BELFAST.

October 7.—By cash .. .. £1.

	£	s.	d.
Thomas Pullman, Esq.	1	0	0

BRIGHTON.

December 1.—By cash .. .. £5 15*s.* 6*d.*

	£	s.	d.
Miss Cobham	1	1	0
Rev. R. Hudson	0	10	6
Miss Carr	1	1	0
Daniel Hack, Esq...	0	10	6
W. Clarkson Wallis, Esq.	1	1	0
Archdeacon Hannah	1	1	0
N. Turnbull, Esq.	0	10	6

BURNLEY.

October 11.—By cash .. .. £1 10*s.* 6*d.*

	£	*s.*	*d.*
J. Langfield Ward, M.A...	0	10	6
F. J. Grant	0	10	0
Alfred Strange	0	10	0

CHICHESTER.

November 23.—By cash .. .. £1 3*s.* 6*d.*

	£	*s.*	*d.*
Mrs. Campbell	0	10	6
Mrs. B. Pigott	0	10	6
Miss Elliott	0	2	6

COUNTY AND CITY OF CORK.

November 24.—By cash .. .. £6 1*s.*

	£	*s.*	*d.*
Mrs. Hunt	1	0	0
Miss Hunt	1	0	0
Henry S. Perry, Esq. (Hon. Sec.)	1	0	0
Miss Perry Shears..	1	0	0
Miss Reeves	1	0	0
Henry Noblett, Esq.	1	0	0

FALMOUTH.

September 22.—By cash .. .. £13 3*s.* 6*d.*

	£	*s.*	*d.*
Rev. J. H. P. Bennett	0	5	0
Edmund Carlyon, Esq.	2	2	0
Rev. J. L. Church..	0	10	0
Rev. W. Fookes	0	10	0
Miss M. A. Enys	1	1	0
F. E. Fox, Esq.	1	1	0
R. Reynolds Fox, Esq.	1	1	0
Miss A. M. Fox	1	0	0
Robert Fox, Esq.	1	1	0
Mrs. Alfred Lloyd Fox	1	1	0
Rev. Geo. Hext	0	10	6
Mrs. Hodge	0	10	6
Miss Hustler	0	10	0
Mrs. Chyverton Peter	0	10	6
Rev. W. Rogers	1	0	0
Rev. Canon Rogers	0	10	0

LICHFIELD.

September 26, 1886.—By cash .. .. £7 19*s.*

	£	*s.*	*d.*
The Dean of Lichfield	2	2	0
Mrs. Bickersteth (Hon. Sec.)	0	10	0
Mrs. Bridgeman	0	10	0
Miss Gulson	1	1	0
Mrs. Lonsdale	2	0	0
Mrs. Newton Phillips	0	5	0
Mrs. Seckham	0	10	0
Mrs. Selwyn	1	1	0

MANCHESTER.

	£	*s.*	*d.*
September 2.—By cheque	6	16	6
October 19.— „	2	12	6
December 9.— „	12	12	0
December 13.— „	4	4	0
December 13.— „	4	4	0
	30	9	0
Remitted previously	17	5	6
Total for 1887 to December 13	£47	14	6

	£	*s.*	*d.*
*a*G. Wilson Rigg, Esq. ..	1	1	0
*a*T. Chorlton, Esq.	0	10	6
*a*John Allsop, Esq.	1	1	0
*a*F. H. Leadham, Esq.	1	1	0
*a*Miss Lowe	1	1	0
*a*Miss Alice Lowe	1	1	0
*a*Dr. Greenwood	1	1	0
*a*J. B. Lee, Esq.	0	10	6
*a*Thomas W. Preston, Esq. ..	1	1	0
*a*J. Chorlton, Esq.	0	10	6
*a*J. F. Robinson, Esq.	1	1	0
*a*Rev. A. E. Robinson.	1	1	0
*a*J. R. Barlow, Esq.	0	10	6
*a*James Heelis, Esq.	1	1	0
*a*John Napier, Esq.	1	1	0
*a*Misses Sharp	1	1	0
*a*Miss Lees (1887, 1888) ..	1	1	0
*a*Mrs. Ryder Richardson ..	1	1	0

	£	*s.*	*d.*
*a*Rev. Canon J. D. Kelly ..	0	10	6
*a*C. H. Johnson, Esq. (1886–7)	1	1	0
*a*Rev. E. V. Schuster	0	10	6
*a*Rev. J. Chippendall	1	1	0
*a*Rev. G. Burwell	1	1	0
*a*Rev. W. H. Rogers, D.D. ..	1	1	0
*a*Rev. H. D. Rawnsley ..	0	10	6
*a*Rev. H. S. Byrth	0	10	6
*a*J. A. Eastwood, Esq.	0	10	6
*a*C. G. Rockwood, Esq. ..	0	10	6
*a*Rev. J. W. Consterdine ..	0	10	6
*a*R. Milne Redhead, Esq. ..	1	1	0
*a*W. Cole, Esq.	0	10	6
*a*Rev. G. W. Reynolds ..	0	10	6
*a*Oliver Heywood, Esq. ..	2	2	0
*a*Ven. Archdeacon Anson ..	1	1	0
*a*Rev. Canon Tonge	0	10	6

SALISBURY.

October 10.—By cash	10*s.* 6*d.*	
	£	*s.* *d.*
F. Griffin, Esq.	0	10 6

SCARBOROUGH.

November 30.—By cash	10*s.* 6*d.*	
	£	*s.* *d.*
R. Turnbull, Esq.	0	10 6

WHITBY.

October 4.—By Cash	£1	1*s.*
	£	*s.* *d.*
John Brewster, Esq.	1	1 0

SUMMARY OF Mr. G. ST. CLAIR'S LECTURES,

September 26th to December 9th.

1887.	£	*s.*	*d.*
September 26th.—Maidstone	7	15	7½
,, 27th.—Canterbury	7	10	1¼
,, 28th.—Dover	21	6	3
,, 29th.—Folkstone	8	3	3½
,, 30th.—St. Leonards	7	1	3
,, 30th.—Hastings	5	19	11
October 3rd.—Kingston-on-Thames	8	4	10
,, 4th.—Eastbourne	5	0	8
,, 5th.—Westbourne Park	9	0	11
,, 6th.—Tunbridge Wells	16	6	6
,, 7th.—Chichester	6	11	2½
,, 10th.—Lewes	7	5	0
,, 11th.—Worthing	11	11	7½
,, 11th.— ,, ...	6	4	8¾
,, 12th.—Littlehampton	4	17	8
,, 13th.—Southampton	12	8	0
,, 13th.— ,, ...	5	2	11
,, 14th.—Winchester	9	14	3
,, 14th.— ,, ...	4	16	9
,, 17th.—Gloucester	5	13	7½
,, 18th.—Weston-super-mare	4	10	6

LIST OF SUBSCRIPTIONS.

		£	s.	d.
October	19th.—Bridgewater	7	7	6
,,	20th.—Taunton	9	4	9½
,,	21st.—Wellington	6	13	0
,,	24th.—Exeter	13	6	10
,,	26th.—Tavistock	5	2	1
,,	28th.—Plymouth	5	14	8
,,	31st.—Devonport	3	4	7
November	1st.—Torquay	15	3	3
,,	2nd.—Exmouth	9	6	6¾
,,	3rd.—Clevedon	10	6	0
,,	7th.—Stamford	6	17	4
,,	8th.—Spalding	4	3	11½
,,	9th.—Lincoln	8	8	3
,,	10th.—Peterborough	8	5	6
,,	11th.—Huntingdon	4	2	6
,,	11th.— ,, ...	5	8	11½
,,	14th.—Gravesend	4	13	6
,,	15th.—Wood Green	2	9	0
,,	16th.—Highbury	5	17	2
,,	17th.—St. Alban's	8	10	4
,,	18th.—Loughboro'	5	3	6
,,	22nd.—Hinckley	5	1	7
,,	23rd.—Kettering	4	3	11¾
,,	24th.—Bedford	10	19	1½
,,	28th.—Lancaster	16	16	2
,,	29th.—Carlisle (afternoon)	10	10	1
,,	29th.— ,, (evening)	6	5	2
,,	30th.—Galashiels	8	0	7½
December	1st.—Selkirk	7	2	0
,,	2nd.—Hawick	4	2	6
,,	3rd.—Galashiels (canvas)	3	19	6
,,	4th.—Melrose	2	17	6½
,,	5th.—Edinburgh (Free St. George's) ..	10	16	3½
,,	6th.— ,, (Mayfield)	9	5	11
,,	7th.—Haddington	4	18	8½
,,	8th.—Edinburgh (Newington)	2	19	2½
,,	9th.—Stirling	4	12	1½

LECTURE BY REV. C. DRUITT, AT SALISBURY, NOVEMBER 24TH, 1887.

Remitted by Rev. A. D. Hill	1	1	0

SUPPLEMENTARY.

1887.		£	s.	d.
December	11th.—Alloa	2	10	3
,,	12th.—Dunfermline	5	2	6
,,	13th.—Kirkcaldy	5	5	0
,,	14th.—St. Andrews	4	16	11½
,,	15th.—Broughton Ferry	4	18	5
,,	16th.—Brechin	5	12	2
,,	19th.—Aberdeen (afternoon)	5	16	0
,,	19th.—Aberdeen (evening)	6	12	9
,,	20th.—Arbroath	3	18	0
,,	21st.—Crieff	4	17	10
,,	22nd.—Glasgow	4	13	4½
,,	23rd.—Edinburgh	2	16	10

LIST OF DONATIONS AND SUBSCRIPTIONS RECEIVED THROUGH MR. G. ST. CLAIR, 1887.

	£	s.	d.
BEDFORD.			
Stanhope Kenny, Esq... ..	0	10	6
J. Herklots, Esq.	1	1	0
Dr. R. H. Kinsey	1	1	0
CANTERBURY.			
Rev. J. G. Hoare	1	1	0
Colonel Horsley, R.E... ..	0	10	6
CARLISLE.			
Rev. J. Hudson	1	1	0
Rev. James Fell	1	1	0
Henry Dobinson, Esq... ..	0	10	6
Henry Carr, Esq.	1	1	0
DOVER.			
Mrs. Sparkes	1	0	0
Rev. Canon Puckle	1	1	0
Rev. R. Turnill Morgan ..	0	10	6
EDINBURGH.			
A. Muir, Esq.	0	10	6
C. Hodge, Esq...	1	1	0
T. Hodge, Esq.	1	1	0
D. C. Robertson, Esq... ..	1	1	0
Miss R. Eliot Lockhart ..	0	10	6
D. C. Robertson (Don.) ..	1	10	3
EXETER.			
The Ven. Archdeacon of Exeter	1	1	0
Miss Ley	1	0	0
Miss K. Bond	0	10	6
General Saxton	2	2	0
EXMOUTH.			
Miss S. Macaulay	0	10	6
FOLKESTONE.			
Rev. G. C. Martin	0	10	6

	£	s.	d.
GALASHIELS.			
Mrs. Brown	1	1	0
Rev. James Spence	1	1	0
Thomas Fairgrieve, Esq. ..	0	10	6
A. L. Brown, Esq.	1	0	0
J. Sanderson, Esq.	1	1	0
James Brown, Esq. (Don.) ..	1	0	0
Mrs. Dickson	0	5	0
Mrs. P. Sanderson	0	10	0
Mrs. R. Sanderson	0	10	0
Mrs. James Dickson	0	10	0
GLOUCESTER.			
Mr. Bellowes	0	10	0
HASTINGS.			
W. Slade, Esq...	0	10	6
HIGHBURY, LONDON, N.			
A. M. Torrance, Esq.	2	2	0
G. W. Hart, Esq.	1	1	0
HUNTINGDON.			
George St. Pierre Harris, Esq..	1	1	0
Rev. John Pycock	1	1	0
KETTERING.			
Rev. Canon Lindsay	1	1	0
KINGSTON-ON-THAMES.			
J. F. East, Esq.	1	1	0
Miss Spencer	1	1	0
G. K. Martin, Esq.	0	10	6
LANCASTER.			
J. W. Pickard, Esq.	1	1	0
LINCOLN.			
Rev. J. W. Townroe	0	10	6
LITTLEHAMPTON.			
Messrs. Bicknell and Pile ..	1	1	0

LIST OF SUBSCRIPTIONS.

	£	s.	d.
Loughboro'.			
Rev. T. Pitts	1	0	0
S. Cattell, Esq...	0	10	6
Maidstone.			
Rev. W. Thompson	1	1	0
J. L'Aker, Esq.	1	1	0
Peterborough.			
G. C. Caster, Esq.	0	10	6
J. Sturton, Esq.	0	10	6
S. C. Colman, Esq.	1	1	0
St. Albans.			
The Ven. Archdeacon Lawrence	0	10	6
St. Leonards.			
Miss Cave Browne	0	5	0
Mr. Bilbrough	0	10	6
Henry Humphreys, Esq., M.D.	0	10	6
Selkirk.			
Rev. Hugh Macmillan ..	0	10	6
Mrs. Turnbull	0	10	6
Mrs. Roberts	0	10	6
Rev. John Sharpe	0	10	6
Southampton.			
C. Hinde, Esq...	1	1	0
Rev. E. W. W. Payne ..	1	1	0
Rev. A. D. Burton	1	1	0
Surgeon A. M. Davies.. ..	0	10	6
Spalding.			
Rev. A. W. G. Moore.. ..	0	5	0
Taunton.			
Rev. C. S P. Parish	0	10	6
E. Sloper, Esq.	0	10	6
Tavistock.			
Captain Charleton	0	10	6
Mrs. Battams	0	10	6
Miss Cox	0	5	0
Torquay.			
Dr. Lombe	1	1	0
Rev. J. Dawson	1	1	0
Captain Henry Guise	1	0	0
Tunbridge Wells.			
W. Edwards, Esq.	1	1	0
Mrs. J. C. Whitty	0	10	6
Rev. J. H. Townsend	0	10	6
Arthur Brown, Esq.	0	10	6
Colonel Kington	0	10	6
A. Nicholson, Esq.	0	10	6
George Livesey, Esq.	1	1	0
Wellington (Somerset).			
Miss Dallas	0	10	6
Westbourne Park (London, W.).			
C. W. Burt, Esq.	0	10	6
W. Sims Smith, Esq.	0	10	6
Rev. Dr. J. Clifford	2	2	0
Winchester.			
Edward Tanner	0	10	6
Worthing.			
Mrs. Way	1	1	0

SUPPLEMENTARY.

	£	s.	d.
Aberdeen.			
Captain Tayler, R.N.	1	1	0
John Adams, Esq.	0	10	6
Mrs. A. R. Gray	1	1	0
Professor Kennedy	1	1	0
Miss Stephen..	1	1	3
Alloa, N.B.			
Dr. Milne	0	10	6
Arbroath.			
Rev. J. I. W. Pollock, M.A. ..	0	10	6
Broughton Ferry.			
R. B. Don, Esq.	0	10	6
J. G. Orchar, Esq.	1	0	0
R. Mudie, Esq...	1	1	0
Brechin.			
Rev. James Crabb	0	10	6
Rev. T. L. Ritchie	1	1	0
Crieff.			
Miss Keith Murray	0	10	6
Dunfermline.			
J. A. Hunt, Esq.	1	1	0
Edinburgh.			
James Johnstone, Esq. ..	1	1	0
Glasgow.			
George Barclay, Esq.	1	1	0
Kirkcaldy.			
J. Miller, Esq.	0	10	6
H. M. Barnett, Esq.	0	10	6

LIST OF HONORARY SECRETARIES AND LOCAL ASSOCIATIONS.

ALLOA: Rev. Alexander Bryson and Rev. Daniel M'Lean.
ABERDEEN: Rev. Prof. Milligan, D.D. *Hon. Sec.* Ladies' Association, Miss Mary Forbes.
ADELAIDE: Rev. W. R. Fletcher.
AMBLESIDE:
ANSTRUTHER: H. B. Mackintosh, Esq.
ARBROATH:
AUCKLAND (NEW ZEALAND): Rev. J. Somerville.
AYR: Robert Murdoch, Esq.
BASINGSTOKE: Rev. W. Marriner.
BATH: Rev. T. P. Methuen.
BEDFORD:
BELFAST: Rev. the President of Queen's College.
BIRKENHEAD:
BIRMINGHAM: Rev. F. Dell.
BISHOPS WALTHAM: Rev. H. R. Fleming.
BLACKBURN: Rev. A. B. Grosart.
BLAIRGOWRIE: W. S. Soutar, Esq.
BODMIN: S. Hicks, Esq.
BOLTON: George Monk, Esq.
BRECON:
BRIGHTON: Rev. C. E. Douglass.
BURNLEY: Alfred Strange, Esq.
BURY: *Hon. Treas.*—Rev. Canon J. Hornby; *Hon. Sec.*—Rev. D. Walmsley.
CAMBRIDGE:
CANADA: Toronto.—Subscriptions are received by the Hon. G. W. Alla
CASTLE BELLINGHAM (IRELAND): Rev. F. G. McClintock.
CARDIFF: W. Adams, Esq., 15, Park Place, Cardiff.
CHELMSFORD: Rev. E. Nathaniel Powell.
CHELTENHAM: Dr. E. Wilson.
CHESTER:
CHIPPENHAM: A. T. Keary, Esq.
CITY AND COUNTY OF CORK: H. S. Perry, Esq., Monkstown.
CLIFTON and BRISTOL: Rev. C. H. Wallace.
COLCHESTER: Rev. N. P. Gepp.
CROYDON: J. W. Janson, Esq.
DARLINGTON: J. P. Pritchett, Esq.
DEVONPORT: J. Venning, Esq.

DUBLIN: Rev. G. T. Stokes.
DUNDEE: *Hon. Treas.*—Alex. Scott, Esq.
DUNFERMLINE: Rev. J. M. Shiack, The Free Abbey Manse.
EASTBOURNE: Rev. H. R. Whelpton.
EDINBURGH: William Dickson, Esq., F.R.S.E., and T. B. Johnston, Esq., F.R.G.S., 16, So. St. Andrew Street.
EPSOM: Miss Hislop.
EXETER:
FAIRFIELD: S. J. A. Barrow-Clough, Esq.
FALMOUTH, for the County of Cornwall: Wilson Fox.
FROME: C. W. Le Gros, Esq.
GAZA: J. G. Pickard, Esq.
GLASGOW: Rev. W. P. Dickson, D.D., Rev. Donald Macleod, D.D., A. B. M'Grigor, Esq., LL.D., and James Andrew Allan, Esq.
GREENOCK:
GUILDFORD: Colonel Pask.
HARTLEPOOL: W. D. Ramsey, Esq.
HASTINGS:
HERTFORD:
HITCHIN: J. Pollard, Esq.
HOLYHEAD: Rev. W. R. Jones.
HUDDERSFIELD: Henry Barker, Esq.
HULL: W. Botterill, Esq., 23, Parliament Street.
IPSWICH:
IRELAND:—DUBLIN: *Hon. Sec.*—Rev. G. T. Stokes, Blackrock. *Treasurers*—The Munster Bank.
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KENDAL:
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KIRKCALDY: Henry Barnett, Esq.
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LARKHALL: Rev. William Findlay, A.M.
LEAMINGTON: Rev. J. Johnson, M.A.
LEDBURY: Rev. F. Salter Stooke-Vaughan.
LEEDS: Edward Atkinson, Esq., F.R.C.S.
LEICESTER: Rev. A. A. Isaacs, M.A.
LEWES:
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MARKET HARBOROUGH:
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MELROSE:
MONTROSE: Mr. Alex. Mackie.

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PITLOCHRIE : Hugh Mitchell, Esq.
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RIPON :
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RYDE : E. Knocker, Esq.
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SCARBOROUGH : T. H. Phillips, Esq., 22, Albermarle Crescent.
SHEFFIELD : *Chairman*—Rev. Canon Blakeney, Vicar of Sheffield.
SHREWSBURY : Rev. C. H. Drinkwater.
SOUTHAMPTON and ROMSEY : Rev. Henry C. Hawtrey.
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SURBITON : Rev. T. Harrison.
SYDENHAM and FOREST HILL :
SYDNEY, NEW SOUTH WALES : Rev. R. Steel, D.D.
TEIGNMOUTH : Rev. H. Hutchins.
TORQUAY :
UXBRIDGE : Rev. A. A. Harland.
WARMINSTER : W. Frank Morgan, Esq.
WELLS : W. I. Welsh, Esq.
WESTON-SUPER-MARE : Rev. H. G. Tomkins.
WEYMOUTH : G. Ff. Eliot, Esq.
WHITBY : E. W. Chapman, Esq.
WILLESDEN : Rev. J. Crane Wharton.
WINDSOR :
WOLVERHAMPTON : Mr. J. McD. Roebuck.
WOODSTOCK : Ontario.—William Edwards, sen., Esq.
WORCESTER : Rev. Francis J. Eld.
YEOVIL : Rev. Abel Phillips, Holy Trinity Vicarage.

The Committee will be glad to communicate with gentlemen willing to help the Fund as Honorary Secretaries.

LIST OF DONATIONS AND SUBSCRIPTIONS.

FROM DECEMBER 13TH, 1887, TO MARCH 21ST, 1888, INCLUSIVE.

a denotes Annual Subscriber.

*** If any omission or mistake be observed in the following lists, the Secretary will be very glad to be informed of it, and will rectify the error in the next *Quarterly Statement*.

	£	s.	d.
*a*Rev. Prof. J. C. Adams ..	1	1	0
*a*Rev. H. H. Adcock	0	10	6
*a*Rev. J. D. Addison (1887–88)	1	0	0
*a*J. S. Aldis, Esq.	1	1	0
*a*R. G. Allan, Esq.	0	10	6
*a*Mrs. F. Allcarn	0	10	6
*a*S. W. Allen, Esq.	1	1	0
*a*Mrs. Anderson	3	3	0
*a*Rev. John Andrew	0	10	0
*a*C. J. Angus, Esq.	0	10	0
*a*Rev. R. Appleton	1	1	0
*a*Mrs. M. H. Arbuthnot ..	2	2	0
*a*Miss Archer	0	5	0
*a*Mrs. Armstrong	0	10	0
*a*George C. Ashmead, Esq. ..	0	10	6
*a*Canon Badcock	1	1	0
*a*Sir Talbot Baker	1	1	0
*a*Mrs. Scott Bankes	0	10	6
*a*Mrs. Cecilia Barnhill.. ..	1	1	0
*a*Miss Barlow	2	2	0
*a*A. C. Bartholomew, Esq. ..	0	10	6
*a*James Barrowman, Esq. ..	1	1	0
*a*Rev. J. A. Bastow	0	10	6
*a*Miss Frances C. Barstow ..	1	1	0
*a*Miss Bates	0	10	6
*a*Rev. J. C. Baxter (1887–88)	1	1	0
*a*F. E. Blackstone, Esq. ..	1	1	0
*a*Rev. D. A. Beaufort	1	1	0
*a*Miss Beaufort..	1	1	0
*a*Rt. Rev. John W. Beckwith	0	10	0
*a*G. P. Beley, Esq.	0	10	6
*a*Rev. D. R. Bell	0	10	6
*a*Rev. Franklin Bellamy ..	1	0	0
*a*Rev. B. H. Berens	1	1	0
*a*John Berwick, Esq.	0	10	6
Carried forward	£32	1	6

	£	s.	d.
Brought forward	32	1	6
*a*Rev. Phillip C. Bevan ..	1	1	0
*a*John Bewly, Esq.	1	1	0
*a*Mrs. Beynon	0	10	6
*a*G. Bickerton, Esq.	1	1	0
*a*Rev. John Binney	2	2	0
*a*Rev. Edwin Bittleston ..	0	10	6
*a*Miss Blackledge (Sub. & Don.)	1	0	0
*a*Bishop of Dover	1	1	0
*a*Bishop of Nelson	1	1	0
*a*Rev. W. R. Blackett (1886–87)	1	0	0
*a*Robert Blackie, Esq... ..	1	1	0
*a*Miss M. A. Blandy	0	10	6
*a*Mrs. H. B. Blandy	0	10	6
*a*H. B. Blandy, Esq.	0	10	6
*a*Rev. C. E. Block	1	1	0
*a*Mrs. Borradaile	0	10	6
*a*Rev. Hilton Bothamly ..	1	1	0
*a*W. Bowers, Esq.	0	10	6
*a*John Bowman, Esq.	0	10	6
*a*Rev. Arthur K. Bowstead ..	0	10	6
*a*Rev. W. Bramley-Moore ..	0	10	6
*a*Rev. Waldegrave Brewster ..	1	1	0
*a*Miss E. H. Bridges	5	0	0
*a*Rev. Arthur Brooks	1	0	0
*a*Miss Broome	1	1	0
*a*Miss Brown	0	10	6
*a*Miss Brown	1	1	0
*a*Rev. J. Brown	1	1	0
*a*Mrs. Ruddle Browne.. ..	0	10	6
*a*Brunswick Book Club (1887–88)..	1	1	0
*a*Rev. W. E. Buckley	1	1	0
*a*Miss Du Buisson	0	10	6
*a*Rev. H. P. Bull	0	10	6
Carried forward	£64	4	6

	£	s.	d.
Brought forward	64	4	6
*a*R. Burlingham, Esq.	1	1	0
*a*Jas. Burnley, Esq.	1	1	0
*a*Eustace Button, Esq. ..	0	10	6
*a*Rev. Henry Caddell	1	1	0
James Caldwell, Esq. (Don.)	1	0	0
*a*Rev. Henry S. Callander ..	0	10	0
*a*Miss Mary Capel	0	10	6
*a*Professor J. Estlin Carpenter.	1	1	0
*a*R. Herbert Carpenter, Esq. (1884–88)	5	5	0
*a*Rev. T. W. Carr	1	1	0
*a*Rev. A. Carr	1	1	0
*a*A. Cates, Esq.	2	2	0
*a*Job Caudwell, Esq. (1887–88)	1	1	0
*a*Rev. Professor Cave	1	1	0
*a*Jos. Challmor, Esq.	1	1	0
*a*Rev. G. Christian	1	1	0
*a*Rev. R. W. Church	1	0	0
*a*Misses Church	0	10	6
*a*Miss Maria Clark	0	10	6
*a*Major-General John Clarke ..	0	10	0
*a*Major Clarke	1	1	0
*a*Miss Clayton	0	10	0
*a*Rev. H. M. Clifford	1	1	0
*a*Miss Clendinning	0	10	0
*a*Rev. W. O. Clinton	1	0	0
*a*J. F. Cobb, Esq.	0	10	6
*a*Dr. Edward Cockey	0	10	6
*a*Rev. Dr. Cook..	0	10	6
*a*General Cooke..	1	0	0
*a*Dr. Cooke	1	1	0
*a*Richard Cooke, Esq.	1	1	0
*a*R. H. Cooke, Esq.	1	1	0
*a*Mrs. F. M. Corse	0	10	6
*a*Mrs. A. H. H. Corsbie ..	1	1	0
*a*Rev. Canon Coulson	1	1	0
*a*G. C. Courthope, Esq. ..	1	1	0
*a*Henry Courtier, Esq.. ..	0	10	6
*a*Sir J. Cowell	2	0	0
*a*Cox and Co.	1	1	0
*a*J. D. Crace, Esq.	1	0	0
*a*Mrs. G. B. Crewdson ..	1	1	0
*a*Robert Crewdson, Esq. ..	1	1	0
*a*J. G. Cribb, Esq., Brisbane ..	1	1	0
*a*C. W. Croft, Esq.	0	10	6
*a*Andrew Crosbie, Esq. ..	0	10	6
*a*Rev. Howard A. Crosbie ..	0	10	6
*a*Dr. Howard Crosby	1	0	0
*a*J. Cudworth, Esq.	1	1	0
*a*Rev. Jas. Culross	0	10	6
*a*Rev. J. D. Cumming.. ..	0	10	6
*a*Miss Valint Cumming ..	1	1	0
*a*Rev. Canon Dalton	1	1	0
*a*Thomas Henry Dalzell, Esq., J.P.	1	1	0
Carried forward	£116	4	6

	£	s.	d.
Brought forward	116	4	6
*a*Geo. E. Dartnell, Esq. ..	0	10	6
*a*General Sir H. C. B. Daubeney, G.C.B.	1	1	0
*a*C. H. David, Esq.	0	10	6
*a*Rev. Alden Davies	1	1	0
*a*Miss Catherine Davis ..	1	0	0
*a*Miss Deacon	2	0	0
*a*Dean and Chapter of Canterbury Library	1	1	0
*a*Collins Denny, Esq.	1	0	0
*a*M. H. W. Devenish, Esq. ..	0	10	6
*a*Rev. Ed. S. Dewick	2	2	0
*a*A. Dodgson, Esq.	0	10	6
*a*Rev. J. D. Dodgson	0	10	6
*a*Samuel Doncaster, Esq. ..	1	1	0
*a*Rev. George C. M. Douglas..	1	1	0
*a*Rev. R. Douglas	0	10	6
*a*W. D. R. Douglas, Esq. ..	1	1	0
*a*H. H. Drabwell, Esq. ..	0	10	6
*a*Rev. Charles Druitt	1	1	0
*a*Mrs. C. Drummond	1	1	0
*a*E. A. Drummond, Esq. ..	3	3	0
*a*Capt. A. M. Drummond ..	1	0	0
*a*Dr. T. O. Dudfield	0	10	6
*a*Dr. Duncan	1	1	0
*a*W. C. Dunlop, Esq.	1	0	0
*a*Rev. A. Dutan	0	10	3
*a*Rev. J. O. Dykes	1	1	0
*a*Rev. J. Dymoke	0	2	6
*a*Lord Ebury	2	2	0
*a*Rev. M. T. Edgell	0	10	0
*a*Robt. J. Elliot, Esq.	1	1	0
*a*R. Ellis, Esq.	1	1	0
*a*Colonel Elliot, C.B.	1	0	0
*a*Ezra Sterling Ely, Esq., Buffalo	1	1	0
*a*Rev. Canon Evans	0	10	6
*a*Mrs. Josiah Evans	3	0	0
*a*Rev. C. Evans..	0	10	6
*a*Miss A. Everard	1	1	0
*a*Miss M. Ewart	1	1	0
*a*Rev. Wm. Ewen, B.D. ..	1	1	0
*a*Miss Fairlie	0	10	6
*a*F. Faithful, Esq.	0	10	0
*a*Rev. M. T. Farrer	5	0	0
*a*Rev. A. R. Fausset, D.D., Canon of York	1	1	0
*a*G. H. Fielding, Esq.	0	10	6
*a*Miss Anna Finkelstein ..	0	10	6
*a*Peter von Finkelstein, Esq. ..	0	10	6
*a*Rev. Robt. W. Fiske	0	10	0
*a*Rev. E. Flecker	0	10	0
*a*Colonel Fleming	1	1	0
*a*Rev. D. Forbes, Esq... ..	0	10	6
*a*P. Forbes, Esq.	2	2	0
*a*Rev. H. M. Foster	1	1	0
Carried forward	£171	2	9

	£	s.	d.
Brought forward	171	2	9
aR. Foster, Esq.	0	10	6
aRev. F. H. Freeth	1	1	0
aFrere Seminary	0	10	6
aD. W. Freshfield, Esq. ..	1	1	0
aMiss Fripp	0	10	6
aH. G. Fuller, Esq., M.A. ..	1	1	0
aMiss Gamett	1	0	0
aMajor Gardiner	1	1	0
aProf. Gautier, Lausanne ..	0	10	6
aMiss M. E. Gardner	0	10	6
aH. Gardner, Esq.	0	10	6
aMiss Garratt	0	10	6
aMrs. E. George	0	10	0
aMrs. Germon	0	10	6
aCapt. R M. Gillson	1	1	0
aThomas J. Gill, Esq. (1887–8)	2	2	0
aMiss A. Good	0	10	6
aSir F. J. Goldsmid	1	1	0
aH. Goodman, Esq.	1	0	0
aRev. — Goodby	0	10	6
aMrs. Goddard	0	10	0
aRev. Thomas Murray Gorman	1	1	0
aArthur R. Granville, Esq. ..	0	10	6
aRev. A. W. Grafton	0	10	6
aMrs. M. R. Gubbins	0	10	6
aRev. H. Guildford Sprigg ..	0	10	6
aCapt. H. J. Guise	1	0	0
aCapt. H. Guise	1	0	0
aGeneral Halliday	1	1	0
aRev. H. Hall Houghton ..	10	0	0
aMiss Halton	0	10	6
aCapt. F. T. B. Hankey ..	1	0	0
aMiss C. Hardy	1	0	0
aGeorge Hardy, Esq.	1	1	0
aRev. A. A. Harland	0	10	6
aMiss S. Harris	1	1	0
aJohn Harris, Esq.	0	10	6
aMiss Harrison	1	1	0
aMiss Harrison	0	10	0
aRev. Leonard Hasse	0	10	6
Miss Hathaway (Don.) ..	0	2	6
aT. Hawley, Esq.	1	1	0
aJ. Hawkinson, Esq.	1	1	0
aRev. E. F. Hay	1	1	0
aCanon T. F. Hayhurst ..	1	0	0
aMiss L. Heath	1	1	0
aG. Henry, Esq.	0	10	6
aR. Henderson, Esq.	0	10	6
aMrs. Hebbert	0	10	0
aSir Wm. Herschel	1	1	0
aRev. J. Hewitson	1	0	0
aArthur H. Heywood, Esq. ..	5	5	0
aB. A. Heywood, Esq. ..	1	1	0
aCharles Hill, Esq.	1	0	0
aJames Hilton, Esq.	3	0	0
Carried forward	£230	19	3

	£	s.	d.
Brought forward	230	19	3
aMrs. Hinde	1	1	0
aMiss Angelina M. Hoare ..	1	1	0
aJohn Honeyman, Esq. ..	0	10	6
aMrs. Marsland Hopkins ..	0	10	6
aColonel Horsley	0	10	6
aMrs. E. F. Holland	0	10	0
aRev. F. J. A. Hort	2	2	0
aMrs. S. H. Hodgson	1	1	0
aRev. George Homer	1	0	0
aT. Radford Hope, Esq., J.P.	1	1	0
aMrs. Huish	1	1	0
aSurgeon-General R. F. Hutchinson	1	1	0
aProf. Edward Hull	1	0	0
aProf. W. H. Huddleston ..	1	1	0
aMrs. Hutchison	1	1	0
aRev. T. S. Hutchinson ..	0	10	6
aRev. W. Inge	1	1	0
aR. Janson, Esq.	1	1	0
Mrs. Jennings (Don.) ..	5	0	0
aT. Johnstone, Esq.	0	10	6
aMrs. Johnstone	1	1	0
aT. M. S. Johnson, Esq. ..	1	1	0
aRev. Owen Jones	0	10	6
aH. D. Jones, Esq.	0	10	6
aRev. J. G. Jones of Aberdeen	0	10	6
aEdward Jones, Esq.	0	10	6
aEdward Joy, Esq.	0	10	6
aSam Joyce, jun.	1	1	0
aSir Brook Kay, Bart.	1	1	0
aMrs. A. E. Kelly	0	10	6
aF. W. Hitchin Kemp, Esq. (1886–87)	1	1	0
aMrs. J. Kinnell	1	1	0
aR. L. Kirby, Esq.	0	10	6
aColonel H. H. Kitchener ..	1	0	0
aLady Eliz. H. Knox	0	10	0
aF. A. Heygate Lambert, Esq.	1	1	0
aMrs. F. Lambert	1	1	0
aL. J. E.	1	0	0
aRev. T. Ladds	1	1	0
aA. Lupton	1	1	0
aMon. L'Abbe Laurent ..	0	5	0
aG. H. Lawrence, Esq. ..	1	1	0
aRev. Wm. H. Lance	1	0	0
aRev. R. Lang	0	10	6
aRev. R. S. del Laffan	0	10	6
aMon. L'Abbe Levesque ..	0	5	0
aRev. Thos. Leishman, D.D. ..	1	0	0
aLibrary Theological Seminary, Rochester, N.Y., U.S.A. ..	0	10	6
aRev. R. R. Linton	1	1	0
aRev. R. Lovett	1	1	0
aLady Low	1	0	0
aRev. A. Lowy (1888–89) ..	1	1	0
Carried forward	£279	12	9

	£	s.	d.
Brought forward	279	12	9
Miss Lowry (Don.)	1	6	0
*a*Mrs. Longlands	1	1	0
*a*J. Lloyd, Esq., Adelaide ..	1	1	0
*a*Rev. J. A. Lloyd	1	1	0
*a*Archdeacon Lloyd	1	1	0
*a*E. Lloyd, Esq.	0	10	6
*a*George Macan, Esq.	0	10	0
*a*Miss Macaulay	0	10	6
*a*W. R. Macdonald, Esq. ..	0	10	6
*a*J. MacGregor, Esq.	2	2	0
*a*Rev. A. Mackennal	1	1	0
*a*W. B. Mainguy, Esq. ..	1	1	0
*a*General H. Mann	0	10	6
*a*Lieut. Mantell	1	1	0
*a*R. F. Martin, Esq.	1	1	0
*a*S. Symonds Martin, Esq. ..	1	1	0
*a*J. W. Martin, Esq.	0	10	6
*a*Miss Martin	1	1	0
*a*H. J. Martyn, Esq.	0	10	6
*a*Rev. Jas. Marshall	1	1	0
Rev. J. Marshall (Don.) ..	0	12	0
*a*Rev. S. F. Maynard	1	1	0
*a*Rev. Peter Mearns	0	10	6
*a*Rev. Edward Medley ..	1	1	0
Miss Meighen (Don.)	0	2	6
*a*Rev. A. Melville	1	0	0
*a*Rev. R. T. P. Methuen ..	1	1	0
*a*Rev. Paul E. O. B. Methuen.	0	10	6
*a*Mrs. Miland	0	10	6
*a*James Millar, Esq.	1	1	0
*a*Mitchell Library, per Jas. Nicol, Esq.	0	10	6
*a*T. J. Mitchell, Esq.	1	1	0
*a*Rev. J. Mitchell	0	10	6
*a*Rev. J. H. Moore	1	0	0
*a*John Morley, Esq.	1	1	0
*a*Henry Morris, Esq.	1	0	0
*a*Rev. Arch. M. Morrison ..	5	0	0
*a*H. J. Morton, Esq.	0	10	6
*a*Rev. W. Morton	0	10	6
*a*Miss Mulholland	1	1	0
*a*Miss Murdoch	1	1	0
*a*Canon Vernon Musgrave ..	1	0	0
*a*Rev. W. Newell	0	10	6
*a*Dr. W. Newman	0	10	6
*a*Rev. W. O. Newnham ..	2	2	0
*a*Miss Newton	0	10	6
*a*Charles Ed. Newton, Esq. ..	0	10	6
*a*John Noble, Esq.	2	0	0
*a*Major-General W. Flatt Noble	0	10	0
*a*Rev. A. E. Northey	1	1	0
*a*Sir C. Nicholson	1	0	0
*a*Sir C. Nicholson	1	0	0
*a*E. A. Nicholson, Esq. ..	0	10	6
*a*Dr. Ogle	1	1	0
Carried forward	£331	7	3

	£	s.	d.
Brought forward	331	7	3
*a*F. R. Ohlson, Esq.	1	1	0
*a*J. B. Oliver, Esq.	0	10	6
Henry M. Omerod, Esq. (Don.)	10	0	0
*a*Lady Augusta Onslow ..	2	2	0
*a*Rev. James Ormiston (1887-8)	1	1	0
*a*Miss Rachel S. Orlebar ..	1	1	0
*a*C. T. Osborne, Esq.	1	0	0
*a*Paisley Philosophical Institution	1	1	0
*a*C. Eyre Parker, Esq.	1	1	0
*a*G. Parkinson, Esq.	1	0	0
*a*J. F. Paul, Esq.	0	10	6
*a*Canon Payne	0	10	6
*a*Miss C. M. Peard	1	1	0
*a*H. S. Pease, Esq	1	1	0
*a*David M. Peebles, Esq. ..	1	0	0
*a*Alex. Peckover, Esq.	0	10	0
*a*Robt. Penty, Esq.	0	10	6
*a*Miss E. G. Petit	1	1	0
*a*Mrs. Pettibone	0	10	6
*a*Capt. J. G. Phelp	1	1	0
*a*J. S. Phene, LL.D.	1	1	0
*a*Messrs. C. and G. Philbrick ..	0	10	0
*a*George Phillip, Esq.	1	1	0
*a*John R. Pilling, Esq.	1	1	0
*a*Miss Pim	1	1	0
*a*F. W. Pinney, Esq.	1	1	0
*a*Wm. Piper, Esq.	1	1	0
*a*Mrs. Pitcairn	0	10	6
*a*John Henry Plowes, Esq. ..	1	1	0
*a*Rev. R. Powell	0	10	6
*a*C. J. Powlett, Esq.	1	1	0
*a*J. F. Pownall, Esq.	1	1	0
*a*Thomas Prince, Esq.	0	10	6
*a*Miss Charlotte Prince ..	1	1	0
*a*J. Pritchit, Esq.	0	10	6
*a*Rev. W. H. B. Proby ..	1	1	0
*a*Mrs. Pryor	0	10	6
*a*Mrs. Riley	0	10	6
*a*R.	0	10	6
*a*R. B. Rackham, Esq. ..	0	10	0
*a*Rev. C. E. Rankin	0	10	6
*a*E. G. Ravenstein, Esq. ..	1	1	0
*a*W. R. Reeves, Esq.	0	10	0
*a*A. J. Richardson, Esq. ..	1	1	0
*a*Dr. Richardson	0	10	6
*a*Rev. O. M. Ridley	0	10	6
*a*Rev. J. Rigaud	1	0	0
*a*Rev. Philpin de Riviere ..	0	5	0
*a*T. Roberts, Esq. (1887-88) ..	1	1	0
*a*Canon Robin	1	1	0
*a*Thomas Rollason, Esq. ..	0	10	6
*a*Rev. W. P. Rorison	1	0	0
*a*Mrs. Roscoe	1	1	0
*a*Rev. W. A. Rouse	0	12	6
Carried forward	£385	19	9

	£	s.	d.
Brought forward	385	19	9
*a*Rev. H. G. Rowe	0	10	6
*a*Rev. J. Rowlands	1	0	0
*a*Rev. R. Rutherford	0	10	6
*a*Miss A. A. Rushton	1	1	0
*a*W. H. Rylands, Esq... ..	1	1	0
*a*H. E. Salter, Esq.	0	10	6
*a*Wm. Sandby, Esq.	1	1	0
*a*John Saunders, Esq... ..	0	10	0
*a*Miss Sawyer	0	10	6
*a*L. E. Scarth, Esq.	1	1	0
*a*J. Scattergood, Esq. ..	1	1	0
*a*Mrs. Lucy Scott	1	0	0
*a*Rev. C. Scott (1888-89) ..	1	1	0
*a*Mrs. Mary E. Scott	0	10	6
*a*Miss Secretan	0	10	6
*a*Viscount Sidmouth	1	1	0
*a*J. P. Sitwell, Esq.	1	1	0
*a*Francis G. Smart, Esq. ..	1	1	0
*a*Rev. W. S. Smith	1	1	0
*a*Mrs. W. Agnes Smith ..	1	1	0
*a*J. D. Smithe, Esq.	0	10	6
*a*R. J. Snape, Esq.	1	1	0
*a*Miss Snow (collect.)	0	5	6
*a*Professor Socin	0	10	6
*a*John Spencer, Esq.	0	10	0
*a*Rev. B. L. Stanhope	1	0	0
*a*Henry Stear, Esq.	1	1	0
*a*Rev. Thomas Stenhouse ..	0	10	6
*a*W. E. Stevenson, Esq. ..	1	1	0
*a*Rev. F. Stewart	0	10	6
*a*Henry Stoddart, Esq. ..	0	10	6
*a*Rev. Pelham Stokes	0	10	6
*a*John Pakenham Stilwell, Esq.	1	1	0
*a*G. Strathairn, Esq.	1	1	0
*a*Rev. W. J. Stracey	1	1	0
*a*Rev. Dr. Strauss	0	10	6
*a*Miss Susan A. Strutt.. ..	1	0	0
*a*Colonel W. Stuart	1	1	0
*a*E. E. Stuart, Esq.	1	1	0
*a*Rev. George Studdul.. ..	1	1	0
*a*Edward Sulley (1888-89) ..	2	2	0
*a*Henry Sulley, Esq.	0	10	6
*a*Watson Surr, Esq.	1	1	0
*a*Miss J. Sutherland	0	10	6
*a*Rev. J. G. Swainson	0	10	6
*a*Miss Sykes	0	10	6
Mrs. Symonds (Don.) ..	0	2	6
*a*Henry Tasker, Esq.	1	1	0
*a*Miss Taylor	0	10	6
*a*Miss M. E. Taylor	0	10	6
*a*J. F. Taylor (1887-88) ..	1	1	0
*a*Rev. J. Taylor	0	10	0
*a*R. Taylor, Esq.	1	1	0
*a*J. D. D. Thomas, Esq. ..	0	10	6
Carried forward	£429	13	9

	£	s.	d.
Brought forward	429	13	9
*a*Rev. George G. S. Thomas (1887-88)	1	1	0
*a*Rev. Jas. Head Thomson ..	0	11	6
*a*J. G. Thompson, Esq. ..	1	1	0
*a*Rev. A. Thompson	1	1	0
*a*Walter Tomlinson, Esq. ..	1	0	0
*a*Mrs. Tremlett..	0	10	6
*a*F. F. Tuckett, Esq.	1	0	0
Do. for trans. Jordan	1	1	0
*a*Mrs. Tufnell	0	10	6
*a*Mrs. Wyndham Tufnell ..	1	1	0
*a*Miss H. J. Tufnell	1	1	0
*a*Rev. G. H. F. Vane	1	1	0
*a*James Vavasseur, Esq. ..	1	1	0
*a*Honorable Alexander Vidal, Canada	1	1	0
*a*T. J. Waddingham, Esq. ..	1	1	0
*a*Rev. W. H. Walford.. ..	2	2	0
*a*Rev. R. G. Walker	0	10	6
*a*Theodore Walker, Esq. ..	0	10	6
*a*Rev. J. Walther	0	10	0
*a*Charles Walton, Esq. ..	1	1	0
*a*Mrs. Anne Walsh	1	1	0
*a*W. Waterfall, Esq.	0	10	6
*a*A. P. Watt, Esq.	1	1	0
*a*Geo. F. Watts, Esq.	1	1	0
*a*Mrs. Wedgewood	2	0	0
*a*Rev. James Went	0	10	6
*a*Wm. G. West, Esq.	1	1	0
*a*Rev. H. H. Westmore ..	1	1	0
*a*Rev. Littleton Wheeler ..	0	10	0
*a*N. C. White, Esq.	1	1	0
*a*Rev. H. L. White	1	0	0
*a*Rev. Ed. White	0	10	0
*a*John Whitehead, Esq. ..	0	10	6
*a*M. W. Whitfield, Esq. ..	0	10	6
Rev. Alfred Wight	0	10	6
*a*Rev. F. E. Wigram	5	5	0
*a*Mrs. M. Wilkins	1	0	0
*a*Mrs. E. S. Wilkinson ..	0	10	6
*a*Miss Williams	1	1	0
*a*Mrs. G. W. Willis	1	1	0
*a*Miss Willis	0	10	6
*a*C. W. Wilshere, Esq. ..	1	1	0
*a*Capt. H. W. T. Wilson ..	1	0	0
*a*Rev. W. Wilson	0	10	0
*a*John George Wilson, Esq. ..	1	1	0
*a*Rev. W. G. Wooler	0	10	0
*a*John Worcester, Esq., U.S.A.	1	1	0
Mrs. Worsley, Beyrout (1887-8)	4	4	0
*a*Rev. Dr. Wray	1	1	0
*a*Rev. Wm. Heber Wright ..	0	10	6
*a*W. B. Young	1	1	0
*a*Miss M. C. Young	0	10	6
Carried forward	£483	6	9

	£	s.	d.
Brought forward	483	6	9
*a*Mrs. Bunbury..	0	10	6
*a*Miss Caw	1	1	0
*a*Rev. Charles Pickering Clarke	1	1	0
*a*Captain Cobham	1	1	0
*a*Rev. G. H. M. Mullins ..	1	1	0
Carried forward	£488	1	3

	£	s.	d.
Brought forward	488	1	3
*a*Hon. Mrs. Clare E. C. Paley..	0	10	6
*a*Henry Peto, Esq.	2	0	0
*a*H. Crichton Stuart, Esq. ..	1	1	0
*a*Henry Walker, Esq.	0	10	6
Total ..	£492	3	3

LOCAL SOCIETIES.

(*Acknowledged in detail under special heading.*)

	£	s.	d.
Aberdeen Ladies' Association	15	16	6
Ayr	2	6	6
Bath	5	5	0
Bishops Waltham	2	2	0
Brighton	16	16	6
Cheltenham	15	0	0
Clifton, Bristol	6	18	0
Edinburgh	70	0	0
Guildford	6	4	6
Hitchin	4	14	6
Hull..	2	12	6
Lincoln	2	3	6
Londonderry	2	12	6
Manchester	19	7	6
Oxford	1	11	0
Plymouth	5	3	0
,, ...	1	11	6
Reading	2	2	0
Shrewsbury..	0	10	6
Stroud	0	10	6
Surbiton	3	3	0
Sydney, New South Wales	1	0	0
Weston-super-Mare	7	17	0
Whitby	2	0	0

ABERDEEN LADIES' ASSOCIATION.

MISS MARY FORBES, *Hon. Sec.*

1888.		£	s.	d.
Feb.	7.—Misses Miller, 158, Crown Street	0	10	0
Mar.	1.—Rev. Alex. M. Bannatyne, 5, Rubislaw Place	0	10	6
,,	1.—Andrew Murray, Esq., 103, Union Street ..	0	10	6
,,	1.—George Jamieson, Esq., 19, Queen's Road ..	0	10	6
,,	1.—Robert Gerard, Esq., 99, Union Street ..	0	10	6
,,	1.—Robert Smith, Esq., Glenmillan	0	10	6
,,	1.—George Thompson, Esq., Pitmedden ..	0	10	6
,,	2.—Provost Henderson, Devauch	0	10	6
,,	2.—George Thomson, Esq., Yost	1	1	0
,,	2.—George Milne, Esq., MacCombie's Court ..	0	10	6
,,	2.—T. Murray Gardner, Esq., 7, Union Terrace	1	1	0

		£	s.	d.
Mar.	3.—Rev. John Christie, D.D., University, Old Aberdeen	0	10	6
„	3.—C. J. Burnett, Esq., 8, Chanonry, Old Aberdeen	0	10	6
„	3.—J. Chalmers, Esq., Westburn	0	5	0
„	3.—John G. Chalmers, Esq., Queen's Terrace ..	0	10	6
„	3.—Rev. J. Mitford Mitchell	0	5	0
„	5.—David Stewart, Esq., of Banchory	1	0	0
„	5.—Wm. Stephenson, Esq., M.D., 297, Union Street	0	10	6
„	6.—Rev. Alex. Stewart, M.D., LL.D., Heathcot	0	10	6
„	6.—Rev. James Cooper	0	2	6
„	8.—Alexander Cochran, Esq.	0	5	0
„	9.—Rev. And. Doak and Mrs. Doak, 15, Queen's Road	0	10	6
„	9.—Wm. Yeats, Esq., Beacon Hill, Murtle ..	1	0	0
„	9.—Mrs. Hargrave, 38, India Street, Edinburgh	0	10	0
„	9.—Rev. John Davidson, D.D., Manse, Inverurie	0	10	0
„	9.—James Bisset, Esq., 7, Albyn Terrace ..	1	0	0
„	9.—Miss Scott, Ruthrieston Lodge	0	5	0
„	9.—Mrs. Corbet, Bieldside House	0	5	0
„	9.—Miss Mary Forbes, Freshfield, Cults ..	0	10	0

List of Subscriptions received through the Honorary Secretaries.

AYR.

Robert Murdoch, Esq., *Hon. Sec.*

	£	s.	d.
*a*Miss Aytoun	0	10	0
*a*D. Currie, Esq.	0	5	0
*a*Rev. Dr. Dykes	0	10	0
*a*R. D. Murdoch, Esq.	1	1	0

December 31.—By cash .. .. .. £2 6*s.* 6*d.*

BATH.

General Warren Walker, *Hon. Sec.*

	£	s.	d.
*a*Mrs. Sendall	1	1	0
*a*Canon Brooke	1	1	0
*a*Miss Mary Kent	1	1	0
*a*J. Prankerd, Esq.	0	10	6
*a*J. D. Chauntrell, Esq.	0	10	6
*a*General G. W. Walker	1	1	0

	£	s.	d.
December 17.—By cash	2	2	0
March 3.—By cash	1	1	0
„ 10. „	2	2	0
	£5	5	0

BISHOPS WALTHAM.

REV. H. R. FLEMING, *Hon. Sec.*

	£	s.	d.
*a*Rev. A. B. Burton	0	10	6
*a*Rev. W. E. Medlicott	0	10	6
*a*Rev. H. R. Fleming	0	10	6
*a*James Padbury, Esq.	0	10	6

February 9.—By cash .. ..£2 2*s.* 0*d.*

BRIGHTON.

REV. C. E. DOUGLAS, *Hon. Sec.*

	£	s.	d.
*a*G. Lowe Reid, Esq.	1	1	0
*a*Rev. T. Calvert	0	10	6
*a*Misses Ridding, 1887	10	0	0
*a*Somers Clark, Esq.	1	1	0
*a*Rev. C. E. Douglas	1	1	0
*a*H. C. Malden, Esq.	1	1	0
*a*Rev. D. Robertson	1	1	0
*a*H. Hebbert, Esq.	1	1	0

February 1.—By cash .. .. .. £16 16*s.* 6*d.*

CHELTENHAM.

DR. E. T. WILSON, *Hon. Sec.*

	£	s.	d.
*a*Miss Wylde Browne	0	10	6
*a*Rev. W. Hutchinson	0	5	0
*a*Rev. R. M. Chamney	1	1	0
*a*John Walker, Esq.	1	1	0
*a*Mrs. Litton	0	10	6
*a*Miss Birchall	1	1	0
*a*Dr. Thorp..	1	0	0
*a*Rev. Canon Bell	1	1	0
*a*W. H. Gwinnett, Esq.	1	1	0
*a*Dr. E. T. Wilson..	0	10	0
*a*Rev. T. H. Carden	2	0	0
*a*Right Hon. Earl of Ducie	5	0	0

February 2.—By cash .. .. .. £15 0*s.* 0*d.*

CLIFTON, BRISTOL.

REV. C. H. WALLACE, *Hon. Sec.*

	£	*s.*	*d.*
*a*The Lord Rollo	1	0	
*a*W. Lavington, Esq.	1	1	0
*a*Miss Moor	0	10	0
*a*Miss Mills	0	10	6
*a*E. W. Bird, Esq.	0	10	6
*a*Mrs. Jenkins	0	10	6
*a*Rev. R. C. Raban	0	10	6
*a*Miss Douglas	0	5	0
*a*Miss Ware	0	5	0
*a*Rev. Canon Mather	0	5	0
*a*Rev. C. H. Wallace	1	0	0
*a*T. Howard, Esq...	0	10	0

January 13.—By cash .. .. .. £6 18*s.* 0*d.*

EDINBURGH.

T. B. JOHNSTON, Esq., F.R.G.S., *Hon. Sec.*

March 22—By cash .. .. £70 0*s.* 0*d.*

1887.

	£	*s.*	*d.*
*a*Mrs. Mill, 35, Howe Street	1	0	0
*a*W. G. Dickson, 3, Royal Circus	1	0	0
*a*Miss McMicking, 21, Coates Gardens	1	1	0
*a*W. F. Burnley, 24, Ainslie Place	1	0	0
*a*Mrs. Gallaway, 1, Drumsheugh Place	1	1	0
*a*Late Dr. Kalley, Campo Verde, 9, Tipperlinn Road ..	0	10	0
*a*Rev. G. B. Carr, 6, Cherrybank	0	5	0
*a*W. J. Ford, 17, Grosvenor Crescent	1	1	0
*a*J. J. Rogerson, Merchiston Castle	1	0	0
*a*Dr. T. A. G. Balfour, George Square	0	5	0
*a*A. Skirving, Croys, Dalbeattie	1	0	0
*a*John Watson, 2, Oswald Road	1	1	0
*a*R. Gibson, 9, Bruntsfield Place	1	0	0
*a*Thomas B. Johnston, Edina Works, Easter Road.. ..	1	1	0
*a*J. T. Brown, Gibralter Road, St. Leonard's Hill	1	1	0
*a*Norman MacLean, 19, Leamington Terrace	0	10	6
*a*Miss Murray Gartshore, Ravelston House, Midlothian ..	0	10	6
*a*J. P. B...	1	0	0
*a*Rev. Dr. Andrew Bonar, Glasgow	0	10	0
*a*J. M. McCandlish, 27, Drumsheugh Gardens	2	0	0
*a*Colonel Agnew, Easter Warriston House	1	1	0
*a*Prof. Duns, D.D., New College	0	10	6
*a*Miss M. S. Scott, 12, Pilrig Street	1	0	0
*a*Rev. Wm. Balfour, St. John's Hill	0	10	6
Carried forward	£20	19	0
			9

	£	s.	d.
Brought forward	20	19	0
*a*Wm. Lyon, 51, George Street	1	1	0
*a*Misses Stevenson, 13, Randolph Crescent	1	0	0
*a*Mrs. Wood, 11, Clarendon Crescent	0	5	0
*a*General Forlong, 11, Douglas Crescent	0	10	6
*a*Rev. Dr. Andrew Thomson, 63, Northumberland Street	0	5	0
*a*Charles Stewart, Jr., W.S., 8, Doune Terrace	0	5	0
*a*George Brown, 10, Douglas Crescent	0	10	0
*a*Wm. Leckie, 11, Carlton Terrace	1	1	0
*a*Late C. S. Inglis, 12, Dick Place	0	10	0
*a*Rev. Alex. Tuke, 17, Glenorchy Terrace	0	10	0
*a*Robert Younger, St. Ann's Brewery	0	10	6
*a*Andrew Usher and Co., West Nicolson Street	0	10	6
*a*Gall and Inglis, Bernard Terrace	0	5	0
*a*Wm. Dickson, 38, York Place	1	1	0
*a*Alex. Padon, 5, Hart Street	0	10	0
*a*John Kennedy, 71, Great King Street	1	0	0
*a*Miss Paterson, 3, Coates Crescent	0	10	0
*a*Horatius Bonar, 15, Hill Street	0	10	6
*a*Professor Simpson, 52, Queen Street	1	1	0
*a*Dr. Moir, 52, Castle Street	1	1	0
*a*Miss Mackenzie, 16, Moray Place	2	0	0
*a*Rev. Dr. Alex. Whyte, 52, Melville Street	1	0	0
*a*Miss Buchanan	0	2	6
*a*Very Rev. Dean Montgomery, 17, Athole Crescent	0	5	0
*a*Mrs. Stewart, 10, Salisbury Road	0	10	0
*a*R. M. Smith, 4, Bellevue Crescent	1	1	0
*a*Sir Douglas Maclagan, 28, Heriot Row	1	1	0
*a*D. Jeffrey, 14, Randolph Crescent	1	0	0
*a*John Scott-Moncrieff, 19, Lynedoch Place	0	10	0
*a*Patrick Guthrie, 135, George Street	0	5	0
*a*Rev. Dr. Teape, 15, Findhorn Place	0	10	6
*a*Mrs. A. Stewart, 10, Ettrick Road	0	10	6
*a*3, Blackford Road (Edmond)	0	10	0
*a*Mrs. Macdougall, Woodburn	0	10	0
*a*Miss Macdougall, Woodburn	0	10	0
*a*P. Mill, 39, North Bridge	1	0	0
*a*Union Mutual Improvement Association, per R. Mill	0	10	6
*a*Rev. D. Simpson, Laurencekirk	0	10	6
*a*Professor Charteris, D.D., Bilston Lodge, Loanhead	0	10	0
*a*Miss Adam, 3, Randolph Place	0	10	0
*a*Mrs. Hunter, 18, Abercromby Place	0	2	6
*a*Edmund Baxter, 9, Rutland Square	1	0	0
*a*Rev. Dr. Bonar, 10, Palmerston Road	1	0	0
*a*J. T. Wilson, Restalrig	0	10	0
*a*Rev. J. C. Macphail, Pilrig Manse	0	5	0
*a*David S. Dickson, W.S., 1, Thistle Court	0	10	6
*a*James Watson, 45, Charlotte Square	1	1	0
*a*Rev. Wm. Turner, 5, St. Andrew Square	0	10	6
*a*John Turnbull, W.S., 58, Frederick Street	1	0	0
*a*J. R. Norrie, George Street	0	10	0
*a*Wm. Younger and Company (Limited), Abbey Brewery	1	1	0
*a*John Drybrough, 15, Coates Crescent	0	10	6
*a*Professor Grainger Stewart, 19, Charlotte Square	1	0	0
*a*Rev. Dr. Rainy, 23, Douglas Crescent	0	10	0
*a*Mrs. H. G. Bell and Miss Sandeman, 1, Douglas Crescent	0	10	0
Carried forward	£57	3	6

	£	s.	d.
Brought forward	57	3	6
*a*Miss E. Hunters, 5, Great Stuart Street	0	10	0
*a*Edward Caird, 15, Belgrave Crescent	1	1	0
*a*Rev. Thomas Brown, 16, Carlton Street	0	10	0
*a*John Scott, 125, Princes Street	0	5	0
*a*Thomas Nelson and Sons, Parkside	1	0	0
*a*Professor Johnstone, D.D., 19, Hope Terrace	0	10	0
*a*John A. Howden, 29, Merchistone Avenue	1	1	0
*a*R. B. Stalker, 6, W. Claremont Street	0	10	0
*a*Wm. Robson, 8, George Street	0	5	0
*a*Wm. Bryce, M.D., 31, Charlotte Square	1	1	0
*a*Rev. Dr. Wilson, 1, East Castle Road	0	5	0
*a*John Bartholomew, 31, Chambers Street	0	10	0
*a*Norman McLean, 19, Leamington Terrace	0	10	6
*a*G. C. and J. C.	2	0	0
*a*Alex. Paton, 2, Drummond Place	0	10	6
*a*J. A. Jamieson, 14, Buckingham Terrace	0	10	6
*a*Rev. D. Shaw, Burnlea, Hamilton	0	10	6
*a*James Thin, 55, South Bridge	0	10	6
*a*Andrew Elliott, 17, Princes Street	0	10	6
*a*Sir James Falshaw, Bart., 14, Belgrave Crescent	1	0	0
*a*Rev. Wm. Teape, West Rainton, Fencehouses, Durham ..	0	10	6
*a*Rev. D. McDougall, Rothiemurchus Manse, Aviemore ..	0	10	6
*a*J. Balfour Melville, Mount Melville, St. Andrews ..	0	10	6
	£72	6	0

SUPPLEMENTARY, 1888.

EDINBURGH LADIES AUXILIARY.

COLLECTED BY MISS DALGLEISH, 8, ATHOLL CRESCENT, EDINBURGH.

	£	s.	d.
*a*Mrs. Dalgleish, 8, Atholl Crescent	0	10	6
*a*Miss Dalgleish „ „	0	10	6
*a*John J. Dalgleish „ „	0	10	6
*a*L. Dalgleish, 1, Rutland Square	0	10	6
*a*Rev. Dr. Stuart, 7, Northumberland Street	0	10	6
*a*Dr. Duncan, 8, Ainslie Place	1	0	0
*a*John Macfie, 14, Hope Terrace	0	10	6
*a*Mrs. Hastie, Luscar, Dunfermline	1	0	0
*a*Mrs. Harvie Brown, Dumpace House, Larbert	0	10	6
*a*Miss Duncan, Viewpark, Lassmade	0	10	6
*a*Dr. R. C. Maclagan, 5, Coates Crescent	0	10	6
	£6	14	6

GUILDFORD.

COLONEL E. H. PASKE, *Hon. Sec.*

	£	*s.*	*d.*
*a*J. R. Capron, Esq.	0	10	6
*a*General Foord	0	10	6
*a*General Sir A. Lawrence, K.C.B.	1	1	0
*a*Mrs. Lawrence	1	0	0
*a*Mrs. O'Connell	0	10	6
*a*Colonel E. H. Paske	0	10	6
*a*Mrs. Valentine Richard	0	10	0
*a*R. J. Shepherd, Esq.	0	10	6
*a*D. Williamson, Esq.	0	10	6
*a*W. Williamson, Esq.	0	10	6

March 16.—By cash .. .. .. £6 4*s.* 6*d.*

HITCHIN.

JOSEPH POLLARD, Esq., *Hon. Loc. Sec.*

	£	*s.*	*d.*
*a*Mrs. Smyth	0	10	6
*a*F. Subohn, Esq.	1	1	0
*a*J. Hack Tuke, Esq.	1	1	0
*a*W. Ransom, Esq.	1	1	0
*a*J. Pollard, Esq.	0	10	6
*a*J. Gatward, Esq.	0	10	6

February 28.—By cash .. .. .. £4 14*s.* 6*d.*

HULL.

WILLIAM BOTTERILL, Esq., *Hon. Sec.*

	£	*s.*	*d.*
*a*Hull Subscription Library	0	10	6
*a*Thomas B. Holmes, Esq.	1	1	0
*a*Edward Bolton, Esq.	0	10	6
*a*William Botterill, Esq.	0	10	6

January 27.—By cash .. .. .. £2 12*s.* 6*d.*

LINCOLN.

CANON HECTOR NELSON, *Hon. Sec.*

	£	*s.*	*d.*
Reginald Wooley (Don.)	0	10	0
Rev. — Townror	0	10	6
Canon Bartlett	0	10	6
Canon Nevil (Don.)	0	5	0
Donation	0	2	0
Miss Oldfield	0	5	6

By cash .. .. £2 3*s.* 6*d.*

LONDONDERRY.

JAMES McCORKELL, Esq., *Hon. Sec.*

	£	*s.*	*d.*
*a*The Very Rev. Dean Smily	0	10	6
*a*John Cowie, Esq.	0	10	6
*a*Alexander McVicker, Esq.	0	10	6
*a*James McCorkell, Esq.	1	1	0

January 16.—By cash .. .. £2 12*s.* 6*d.*

MANCHESTER.

REV. W. F. BIRCH, *Hon. Sec.*

	£	*s.*	*d.*
January 24.—By cheque	10	10	0
February 27.— „	5	5	0
March 16.— „	3	12	6
	£19	7	6

1887.

*a*James Parlane, Esq...	1	1	0
*a*Rev. A. Haworth	0	10	6
*a*Rev. A. McLaren, D.D.	1	1	0
*a*Rev. E. C. Hore	0	10	6
*a*Rev. Canon Slowell	0	10	6
*a*C. J. Heywood, Esq...	1	1	0
	£4	14	6
Remitted previously	47	14	6
Total for 1887	£52	9	0

1888.

	£	*s.*	*d.*
*a*Thomas Kay, Esq.	1	1	0
*a*J. Robinson, Esq.	2	2	0
*a*F. W. Grafton, Esq...	2	2	0
*a*T. Rymer, Esq.	1	1	0
*a*G. Robinson, Esq.	1	1	0
*a*W. Slater, Esq., jun.	1	1	0
*a*R. Armistead, Esq.	0	10	6
*a*E. Hardcastle, Esq., M.P.	1	1	0
*a*R. W. Barnes, Esq.	0	10	6
*a*Oswald Robinson, Esq.	1	1	0
G. W. Moultrie, Esq.	1	1	0
*a*Ernest Bellhoase, Esq.	1	1	0
*a*Rev. P. Lynch	1	0	0
	£14	13	0

OXFORD.

REV. CANON GIRDLESTONE, *Hon. Sec.*

	£	*s.*	*d.*
*a*Rev. Canon Girdlestone..	1	1	0
*a*Miss Jephson	0	10	0

March 21.—By cash .. .. .. £1 11*s.* 0*d.*

PLYMOUTH.

JOHN SHELLY, Esq., *Hon. Sec.*

	£	*s.*	*d.*
*a*John Windcott, Esq.	2	0	0
*a*E. James, Esq.	0	10	6
*a*Miss Bragge	0	10	6
*a*J. Shelly, Esq.	0	10	6
*a*H. Greenway, Esq.	0	10	6
*a*J. N. Bennett, Esq.	0	10	6
*a*Captain Inskip, R.N.	0	10	6

December 31.—By cash .. .. .. £5 3*s.* 0*d.*

PLYMOUTH.

H. B. S. WOODHOUSE, Esq., *Hon. Sec.*

	£	*s.*	*d.*
*a*H. B. S. Woodhouse, Esq.	1	1	0
*a*Mrs. Woodhouse	0	10	6

February 27.—By cash .. .. .. £1 11*s.* 6*d.*

READING.

REV. W. BUTLER, *Hon. Sec.*

	£	*s.*	*d.*
*a*R. D. Catchpool, 1887–88	1	1	0
*a*Mrs. Mary Butler	1	1	0

February 29.—By cash .. .. .. £2 2*s.* 0*d.*

SHREWSBURY.

REV. C. H. DRINKWATER, *Hon. Sec.*

*a*Mrs. Parry .. .. 10*s.* 6*d.*

March 10.—By cash .. .. 10*s.* 6*d.*

STROUD.

T. J. Osborne, Esq., *Hon. Sec.*

	£	*s.*	*d.*
*a*Rev. Henry D'Ombrain, M.A.	0	10	6

SURBITON.

Rev. Thomas Harrison, *Hon. Sec.*

	£	*s.*	*d.*
*a*Sir J. Whittaker Ellis, Bart., M.P.	1	1	0
*a*Rev. Thomas Harrison	0	10	6
*a*Fred Pitts, Esq.	0	10	6
*a*Peter Bancroft, Esq...	1	1	0

	£	*s.*	*d.*
February 28.—By cash	2	2	0
March 19.— „	1	1	0

SYDNEY, NEW SOUTH WALES.

Rev. R. Steel, D.D., *Hon. Sec.*

*a*Rev. R. Steel .. .. £1 0*s.* 0*d.*

WESTON-SUPER-MARE.

Rev. Henry George Tomkins, *Hon. Sec.*

	£	*s.*	*d.*
*a*Rev. M. O. Stevens	0	10	6
*a*Rev. Preb. Huxtable (Don.)	1	0	0
*a*Rev. Henry G. Tomkins	0	10	6
*a*Miss Haslewood	0	5	0
*a*Rev. J. B. Bartlett	0	5	0
*a*Mrs. H. Matheson	0	5	0
*a*Miss Lunell	0	10	6
*a*Rev. W. Smith Tomkins	0	10	6
*a*Miss Wills	0	5	0
*a*Mrs. Dalton	0	10	0
*a*Mrs. Temple	0	2	6
*a*Rev. Preb. Hunt	0	10	6
*a*Rev. D. Wheeler	0	10	6
*a*Dr. Roxburgh..	0	5	0
*a*W. Ash, Esq.	0	10	0
*a*Mrs. Cookson..	0	10	0
*a*Miss Rodham..	1	1	0

December 30.—By cash.. .. .. .. £7 17*s.* 0*d.*

WHITBY.

ED. WILLIAM CHAPMAN, Esq., *Hon. Sec.*

	£	s.	d.
*a*Rev. J. S. Nightingale	0	10	0
*a*Miss Lang	0	10	0
*a*Ed. William Chapman, Esq.	1	0	0

February 3.—By cash .. .. £2 0*s.* 0*d.*

LIST OF LECTURES

By GEORGE ST. CLAIR, Esq., *Lecturer for the Palestine Exploration Fund.*

		£	s.	d.
1887.				
July	5th.—Alfreton (afternoon)	2	8	6
,,	5th.—Alfreton (evening)	2	17	3
1888.				
January	11th—Norwood (St. Aubyn's Hall)	3	2	7
,,	16th.—Norwood (Central Hall)	9	5	8
,,	17th.—Loughboro' Park	3	13	3
,,	18th.—Hampstead	8	1	10
,,	19th.—Highgate	5	11	0
,,	24th.—Hertford	8	10	6
,,	25th.—St. John's Wood	7	14	0
,,	26th.—Rochester	7	9	4
,,	27th.—Haverstock Hill	17	17	8
,,	30th.—Clapham	2	5	1¼
,,	31st.—Hammersmith	5	3	8
February	1st.—Northampton	7	19	6½
,,	2nd.—Wolverhampton	2	17	6
,,	3rd.—Shrewsbury	8	2	6
,,	6th.—Nottingham	13	13	6
,,	7th.—Leicester	4	1	5
,,	8th.—Rotherham	6	6	0
,,	9th.—Chesterfield	7	10	0
,,	10th.—Leicester	6	15	7½
,,	13th.—Whitchurch (subscriptions)	5	4	0
,,	14th.—Stafford	4	2	1
,,	15th.—Derby	12	0	3
,,	15th.—Headingley	6	2	7
,,	17th.—Otley	3	5	6
,,	20th.—Stockport	8	3	5½
,,	21st.—Hull	8	19	7½
,,	22nd.—Driffield (sales)	0	10	0
,,	24th.—Stockton	4	1	0
,,	27th.—Barnard Castle	3	2	6
,,	28th.—South Shields	2	4	4
,,	29th.—Morpeth	4	0	0
March	1st.—Newcastle	9	9	3
,,	2nd.—Tynemouth	8	10	7
,,	5th.—Stourbridge	7	14	9½
,,	6th.—Worcester	11	5	2
,,	7th.—Bath	16	6	6¾

1888.		£	s.	d.
March	8th.—Stroud	10	7	3
,,	9th.—Cheltenham	17	2	6
,,	12th.—Wells	6	19	0
,,	13th.—Tewkesbury	5	15	0
,,	14th.—Monmouth	3	8	3½
,,	15th.—Evesham	6	16	3½
,,	16th.—Handsworth	7	1	10

By Rev. Henry Geary, *Lecturer for the Palestine Exploration Fund.*

1887.
November 26th.—Great Warley £6 16 0

By Rev. Charles Druitt.

	£	s.	d.
January 16th.—Lyme Regis	2	12	4

Per R. W. Hillman, Esq. By cash .. £2 12*s.* 4*d.*

By Rev. S. F. Maynard.

	£	s.	d.
February 22nd.—Proceeds of a Lecture and Donations at Horwich	5	0	0
—Miss Blackledge (sub. and don.) ..	1	0	0

By cash .. .. £6 0*s.* 0*d.*

LIST OF DONATIONS AND SUBSCRIPTIONS RECEIVED THROUGH MR. G. ST. CLAIR.

Hammersmith.

	£	s.	d.
Rev. W. Page	0	10	6
J. Webster, Esq.	0	10	6

Haverstock Hill.

H. Harben, Esq.	5	5	0
Miss M. W. Harben	1	1	0
John R. Wilkinson, Esq. ..	1	1	0

Rochester.

Colonel Farquharson	1	1	0
Rev. J. Langhorne	1	1	0
F. Wingent, Esq.	1	1	0

St. John's Wood.

G. P. Neele, Esq.	0	10	6
Ralph Callard, Esq.	0	10	6
Miss Owens	0	10	6

Hertford.

	£	s.	d.
Rev. Canon Wigram	1	1	0
Rev. Claude Cecil Thorneton..	0	10	6
G. B. Francis, Esq.	0	10	6
Isaac Robinson, Esq.	0	10	6

Highgate.

G. Pearson, Esq.	0	10	6

Hampstead.

G. Hughes, Esq.	0	10	6
Rev. Newman Hall	0	10	6
Mrs. Henry Cox	0	10	6
Dr. E. B. Underhill	0	10	6

Loughboro' Park.

Rev. E. D. A. Herschell ..	0	10	6

	£	s.	d.
NORWOOD.			
Captain Stirling	1	1	0
W. Ellis, Esq.	0	10	6
W. F. Woods, Esq.	0	10	6
Henry Franks, Esq.	0	10	6
S. C. Scott	0	10	6
Rev. S. A. Tipple	0	10	6
H. H. Heath, Esq.	0	10	6
NORTHAMPTON.			
Rev. Dr. Sanders	0	10	6
Rev. J. Gasgnoine	0	10	6
SHREWSBURY.			
Thomas S. Stooke, Esq. ..	0	10	6
Miss Nicolls	0	10	6
Rev. E. Myers	0	10	6
NOTTINGHAM.			
Dr. Gow	0	10	6
Wm. H. Booker, Esq. (1887–8)	1	1	0
Alderman Manning	1	1	0
ROTHERHAM.			
Arthur Habershon	0	10	6
CHESTERFIELD.			
E. T. Hamel, Esq.	0	10	6
Rev. V. J. Higgins	0	10	6
Chas. Armstrong, Esq. ..	1	1	0
LEICESTER.			
A. N. Johnson	0	10	6
Rev. P. T. Jones	0	10	6
WHITCHURCH.			
Miss D. Kent	1	1	0
Rev. R. Hiles	0	10	6
Rev. W. Egerton	0	10	6
Wm. Ed. Bright, Esq... ..	0	10	6
Spencer E. Smith, Esq. ..	0	10	6
Mrs. Godsal	1	1	0
STAFFORD.			
Miss Christian Bell	0	10	6
B. P. Wright, Esq.	0	10	6
DERBY.			
Miss Sarah Goodall Copestake	0	10	6
Mrs. Evans	0	10	6
Walter G. Copestake, Esq. ..	0	10	6
Miss Rushton	1	1	0
HEADINGLEY.			
Miss Thorpe	0	10	6
Benj. Holgate, Esq.	0	10	6
John Lupton (Don.)	0	10	0
STOCKPORT.			
Wm. Lees, Esq.	0	10	6
H. A. Southworth, Esq. ..	0	10	6
Richard T. Heys, Esq. ..	0	10	6
Joseph Leigh, Esq.	1	1	0
HULL.			
Henry Allison, Esq.	0	10	6
STOCKTON.			
C. Bone, Esq.	1	1	0
TORQUAY.			
Miss Whidborne	1	0	0
NEWCASTLE-ON-TYNE.			
Mrs. Flinders Naylor	0	10	6
Thos. Hodgkin, Esq., D.C.L...	1	1	0
D. Richardson, Esq.	0	10	6
TYNEMOUTH.			
John Adolphus Harrison, Esq.	1	1	0
Rev. M. S. Shaw (Don.) ..	1	0	0
F. C. Marshall, Esq. (Don.) ..	1	0	0
STOURBRIDGE.			
Miss C. E. Richards	0	10	6
BATH.			
Rev. Carr Glyn Acworth ..	0	10	6
Miss R. E. Austin	1	1	0
R. G. Wardlow Ramsay, Esq..	1	1	0
Rev. John S. Austin	0	10	6
STROUD.			
Arthur Evans, Esq.	1	1	0
S. M. Strange, Esq.	0	10	6
Edward E. Evans, Esq. ..	1	1	0
CHELTENHAM.			
Rev. A. Wight	0	10	6
WELLS.			
Rev. Canon Church	1	1	0
Rev. Athelstan Coade	1	1	0
Rev. A. Richardson	0	10	6

LIST OF SUBSCRIPTIONS.

Tewkesbury.

	£	s.	d.
Miss Osborne	0	10	6
Mrs. Ruddle	1	1	0

Evesham.

	£	s.	d.
Isaac Morris, Esq., Mayor ..	1	1	0
J. Bracher, Esq.	1	1	0
Rev. M. S. Dunbar, M.A. ..	0	10	6

Monmouth.

	£	s.	d.
T. R. Hyam	0	10	6

Handsworth.

	£	s.	d.
Rev. W. Randall, D.D. ..	1	1	0
R. Mansell, Esq.	0	10	6
H. Collier, Esq.	1	1	0
Rev. E. D. Roberts	0	10	6
G. F. Davis, Esq.	0	10	6

SUMMARY OF DONATIONS AND SUBSCRIPTIONS THROUGH MR. ST. CLAIR.

	£	s.	d.
Hammersmith	1	1	0
Haverstock Hill	7	7	0
Rochester	3	3	0
St. John's Wood	1	11	6
Hertford	2	12	6
Highgate	0	10	6
Hampstead..	2	2	0
Loughboro' Park	0	10	6
Norwood	4	4	0
Northampton	1	1	0
Shrewsbury	1	11	6
Nottingham	2	12	6
Rotherham..	0	10	6
Chesterfield	2	2	0
Leicester	1	1	0
Whitchurch	4	4	0
Stafford	1	1	0
Derby	2	12	6
Headingly	1	11	0
Stockport	2	12	6
Hull	0	10	6
Stockton	1	1	0
Torquay	1	0	0
Newcastle-on-Tyne	2	2	0
Tynemouth	3	1	0
Stourbridge	0	10	6
Bath	3	3	0
Stroud	2	12	6
Cheltenham	0	10	6
Wells	2	12	6
Tewkesbury	1	11	6
Evesham	2	12	6
Monmouth..	0	10	6
Handsworth	3	13	6

SUMMARY.

	£	s.	d.
Donations and Subscriptions	492	3	3
Local Societies	181	11	6
Lectures—Proceeds of	114	11	6
Maps and Memoirs	145	1	5
Books	38	4	5
	£971	12	1

LIST OF HONORARY SECRETARIES AND LOCAL ASSOCIATIONS.

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BATH: General Warren Walker, Tilehurst, Sion Hill.
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DUNFERMLINE: Rev. J. M. Shiack, The Free Abbey Manse.
EASTBOURNE: Rev. H. R. Whelpton.
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EPSOM: Miss Hislop, High Street.
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GAZA:
GLASGOW: Rev. W. P. Dickson, D.D., Rev. Donald Macleod, D.D., A. B. M'Grigor, Esq., LL.D., and James Andrew Allan, Esq.
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GUILDFORD: Colonel Paske.
HARTLEPOOL: W. D. Ramsey, Esq.
HASTINGS:
HERTFORD:
HITCHIN: J. Pollard, Esq., High Down.
HOLYHEAD: Rev. W. R. Jones.
HUDDERSFIELD: Henry Barker, Esq.
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KENDAL:
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KIRKCALDY: Henry Barnett, Esq.
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LARKHALL: Rev. William Findlay, A.M.
LEAMINGTON: Rev. J. Johnson, M.A.
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MARKET HARBOROUGH:
MELTON MOWBRAY: Rev. Arthur M. Rendel.
MELROSE:
MONTROSE: Mr. Alex. Mackie.
MORPETH:

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OXFORD : Rev. Canon Girdlestone.
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PITLOCHRIE : Hugh Mitchell, Esq.
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PWLLHELI : Rev. Owen Jones.
RAMSGATE :
READING : Rev. W. Butler, 13, Victoria Square.
REIGATE :
RICHMOND, SURREY :
RIPON :
RUGBY : Rev. A. O. James.
RUNCORN : Rev. W. Preston, M.A.
RYDE : E. Knocker, Esq.
SALISBURY : J. Lardner Green, Esq., M.R.C.S.
SCARBOROUGH : T. H. Phillips, Esq., 22, Albermarle Crescent.
SHEFFIELD : *Chairman*—Rev. Canon Blakeney, Vicar of Sheffield.
SHREWSBURY : Rev. C. H. Drinkwater, St. George's Vicarage.
SOUTHAMPTON and ROMSEY : Rev. Henry C. Hawtrey.
SOUTHSEA : Rev. F. Baldey.
SOWERBY : Rev. A. L. W. Bean.
ST. ALBANS : The Ven. Archdeacon Lawrance.
ST. ANDREWS :
ST. HELENA : Rev. Canon Lambert.
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SURBITON : Rev. T. Harrison.
SYDENHAM and FOREST HILL :
SYDNEY, NEW SOUTH WALES : Rev. R. Steel, D.D.
TEIGNMOUTH : Rev. H. Hutchins.
TORQUAY :
UXBRIDGE : Rev. A. A. Harland.
WARMINSTER : W. Frank Morgan, Esq.
WELLS : W. I. Welsh, Esq.
WESTON-SUPER-MARE : Rev. H. G. Tomkins, Park Lodge.
WEYMOUTH : G. Ff. Eliot, Esq.
WHITBY : E. W. Chapman, Esq.
WHITCHURCH, SALOP : Dr. S. Tayleur Gwyne, St. Mary's House.
WILLESDEN : Rev. J. Crane Wharton.
WINDSOR :
WOLVERHAMPTON : Mr. J. McD. Roebuck.
WOODSTOCK : Ontario.—William Edwards, sen., Esq.
WORCESTER : Rev. Francis J. Eld.
YEOVIL : Rev. Abel Phillips, Holy Trinity Vicarage.

The Committee will be glad to communicate with gentlemen willing to help the Fund as Honorary Secretaries.

LIST OF DONATIONS AND SUBSCRIPTIONS.

FROM MARCH 23RD, 1888, TO JUNE 21ST, 1888, INCLUSIVE.

a denotes Annual Subscriber.

*** If any omission or mistake be observed in the following lists, the Secretary will be very glad to be informed of it, and will rectify the error in the next *Quarterly Statement*.

	£	*s.*	*d.*
*a*Adler, Marcus N., Esq. ..	0	10	6
*a*Alexander, Hugh, Esq. ..	1	1	0
*a*Allen, Rev. Wm.	1	1	0
*a*Archard, Mrs...	0	10	6
*a*Ashby, Robert, Esq.	1	1	0
*a*Aspinall, Mrs...	1	1	0
*a*Atkinson, Rev. Dr. E. ..	1	1	0
*a*Atkinson, J. J., Esq.	0	10	6
*a*Bain, Geo. W., Esq.	0	10	6
*a*Barker, E. S., Esq.	0	10	6
*a*Barlow, John R., Esq. ..	1	1	0
*a*Baron, R., Esq.	0	10	6
*a*Bell, Rev. James (B.D.) ..	0	10	6
*a*Blackett, Dr. Edward R. ..	0	10	6
*a*Blackett, J. S., Esq.	0	10	6
*a*Bonar, Rev. J. J. (D.D.) ..	1	0	0
*a*Brown, William, Esq., 1887–88	2	2	0
*a*Butler, W., Esq.	0	10	6
*a*Cardew, Rev. J. H.	1	0	0
*a*Chester, Greville J., Esq. ..	0	10	6
*a*Church, The Misses	0	10	6
*a*Clarke, J. Fenn, Esq... ..	1	1	0
*a*Clark, Albert H., Esq. ..	0	10	6
*a*Cock, John, Esq.	0	5	0
*a*Collins, Sir William	1	1	0
*a*Cross, Miss F. M.	0	10	6
*a*Curling, Rev. J. J. (Don.) ..	1	0	0
*a*Dartmouth College (Hanover)	0	10	6
*a*Davey, The Rev. Preb. W. H., 1887–88	1	1	0
*a*Davies, W. A., Esq.	1	1	0
*a*Davies, Dr. A. M.	0	10	6
*a*Elcum, Rev. C. C.	1	0	0
*a*Estens, J., Esq.	0	10	6
*a*Evill, Rev. W. Ernest ..	1	1	0
Carried forward	£26	16	6

	£	*s.*	*d.*
Brought forward	26	16	6
*a*Fardell, Rev. E. S.	0	10	6
*a*Fowler, Rev. J. F. (1886–88)	1	11	6
*a*Fredericton, Bishop of ..	1	1	0
*a*Frith, Mrs.	0	10	6
*a*Fry, Lord Justice	1	1	0
*a*Gadsby, J., Esq.	1	1	0
*a*Geddes, Wm., Esq.	0	10	6
*a*Gorringe, Mrs.	1	0	0
*a*Goulburn, Bishop of	1	1	0
*a*Green, Mrs. Thomas	0	10	6
*a*Gwynn, Dr. Tayleur (1887-88)	1	1	0
*a*Gwynne, W. Cust. (M.D.) ..	0	10	6
*a*Harrison, Rev. J. H... ..	1	1	0
*a*Hartford Theological Seminary, 1883–88	3	3	0
*a*Harvard College, Cambridge (Mass.)	0	10	6
*a*Helmore, Rev. T.	0	10	6
*a*Hill, Rev. Melsup	1	1	0
*a*Hill, Rev. E. (1886–88) ..	3	0	0
*a*Hinde, F. P., Esq.	0	10	6
*a*Hitchcock Hiram, Esq. ..	1	0	0
*a*Hogg, Mrs.	1	1	0
*a*Hughes, Thomas, Esq. ..	0	10	6
*a*Illingworth, F., Esq... ..	1	1	0
*a*Janson, Richard, Esq. ..	1	1	0
*a*Johnson, Dr. G. Lindsay ..	1	1	0
*a*Jones, Rev. W. R.	0	10	6
*a*Kay, H. C., Esq.	1	11	6
*a*Khitrovo, Herr B.	1	1	0
*a*Leask, Henry, Esq.	0	10	6
*a*Lefroy, Gen. Sir H.	1	1	0
*a*Library of Congress (Washington)	0	10	6
Carried forward	£58	1	6

	£	s.	d.
Brought forward	58	1	6
*a*Library of Parliament (Canada)	0	10	6
*a*Little, Rev. James	1	0	0
*a*Longstaff, Mrs. M. L. ..	1	1	0
*a*Lorrimer, Rev. R.	0	10	6
*a*Lortet, Dr.	0	11	10
*a*Lyth, J. B., Esq.	0	10	6
*a*MacBrayne, David, Esq. ..	0	10	6
*a*McConkey McCready, Rev. E.	1	1	0
*a*Mackinnon, P., Esq. (Don.) ..	10	0	0
*a*Mackintosh, Miss	0	10	6
*a*Malcolm, Rev. H.	0	10	0
*a*Manning, Mrs.	1	1	0
*a*Mathieson, N., Esq.	1	1	0
*a*Mayfield. J. R., Esq.	1	1	0
*a*Melrose, James, Esq.	5	0	0
*a*Miller, Mrs., Monica M. ..	1	1	0
*a*Morgan, Rev. R. H. (1887-88)	1	1	0
*a*Musgrave, Rev. Canon ..	0	10	6
*a*Norman, R., Esq.	1	1	0
*a*Olseen, Rev. O. (Sweden) ..	0	10	6
*a*Paton, Arthur Robert, Esq. ..	0	10	6
*a*Peabody Institute (Baltimore)	0	10	6
*a*Pearson, Ed., Esq.	1	1	0
*a*Peggs, W. J., Esq.	1	1	0
*a*Porter, Dr., the President of Queen's College	1	1	0
Pryor, Mrs.	0	10	6
*a*Rendell, Rev. Arthur M. ..	1	1	0
*a*Roberts, L. G. A., Commander, R.N.	0	10	6
*a*Robertson, Rev. Prof., D.D.	0	10	6
*a*Robson, Mrs.	1	1	0
*a*Sandilands, Gen. P. H. ..	1	0	0
*a*Sayce, Rev. Prof.	1	1	0
Carried forward	£97	3	4

	£	s.	d.
Brought forward	97	3	4
*a*Scott, The Misses	1	1	0
*a*Shackleton, Rev. T.	0	10	0
*a*Shaw, Rev. W. Stokes (1887-88)	1	1	0
*a*Shaw, E. R., Esq.	0	10	6
*a*Sheppard, W. F., Esq. ..	1	1	0
*a*Sibthorpe, Miss Waldo ..	1	1	0
*a*Skipwith, Mrs. F.	1	0	0
*a*Smith, H. Esq. (Ontario, 1887-88)	1	4	8
*a*Spring, Mrs.	1	0	0
*a*Stewart, James, Esq.	1	1	7
*a*Strickland, J. G., Esq. ..	1	10	0
*a*Stroud, Rev. R. A. H. ..	0	10	0
*a*Stuart, Gen. Chas.	2	2	0
*a*Styan, Miss A.	1	1	0
Switzerland	0	10	0
*a*Taylor, Alex., Esq.	0	10	6
*a*Tolson, Miss S. M.	0	10	6
*a*Trench, J., Esq.	0	10	6
*a*Turnbull, R. T., Esq. (1884-88)	5	5	0
*a*Tyndall, Wm. Henry, Esq. ..	1	1	0
*a*Wakeham, Miss Frances ..	5	5	0
*a*Walker, Rev. Alex.	1	0	0
*a*Ward, Lt.-Colonel	1	1	0
*a*Webb, R. J., Esq.	1	1	0
*a*White, Henry, Esq.	0	10	6
*a*Whitley, W. T., Esq. ..	0	10	6
*a*Winter, Rev. David (M.A.) ..	0	10	6
*a*Wood, H. K., Esq.	1	1	0
*a*Woodhouse, Rev. T.	1	1	0
*a*Wright, W. Aldis, Esq. (D.D.)	2	2	0
*a*Yale College (New Haven) ..	0	10	6
	£134	17	7

SUPPLEMENTARY.

Omitted in January *Quarterly Statement.*

*a*Mrs. M. Prinsep for 1888–1892 .. .. £5 0 0

LOCAL SOCIETIES.

(*Acknowledged in detail under special heading.*)

	£	s.	d.
Aberdeen Ladies' Association	15	16	0
Brighton	2	2	0
Burnley	1	5	6
Darlington	15	10	6

	£	s.	d.
Dundee	0	10	6
Dunfermline	0	7	6
Hitchin, Herts.	2	2	0
Leamington	1	1	0
Leeds	19	1	0
Leicester	1	10	0
Lichfield	3	5	6
Manchester	3	3	0
Norwich	17	1	0
Oldham	1	14	0
Reading	6	5	0
Stroud	4	14	6
Sydney, New South Wales	1	0	0
	96	9	0

List of Subscriptions received through the Honorary Secretaries.

ABERDEEN LADIES' ASSOCIATION.

Miss Mary Forbes, *Hon. Sec.*

By cash .. .. £15 16*s.* 0*d.*

	£	s.	d.
*a*Webster, John, Esq., LL.D., Edgehill, Murtle ..	0	10	6

BRIGHTON.

Rev. C. E. Douglas, *Hon. Sec.*

May 31.—By cash .. .. £2 2*s.* 0*d.*

	£	s.	d.
*a*Carr, Miss	1	1	0
*a*Fowler, Rev. W. S.	1	1	0

BURNLEY.

Alfred Strange, Esq., *Hon. Sec.*

May 11.—By cash .. .. £1 5*s.* 6*d.*

	£	s.	d.
*a*Howorth, Miss, Park View	0	10	6
*a*Lancaster, James, Esq., Carlton Road..	0	10	0
*a*Stroyan, Mrs., Brunshaw Road	0	5	0

DARLINGTON.

J. P. PRITCHETT, Esq., *Hon. Sec.*

May 16.—By cash .. .. £15 10*s.* 6*d.*

	£	*s.*	*d.*
*a*Pease, Arthur, Esq.	10	0	0
*a*Pease Mrs. Gurney	5	0	0
*a*Pridcaux, Miss	0	10	6

DUNDEE.

ALEXANDER SCOTT, Esq., *Hon. Treasurer.*

May 11.—By cash .. .. 10*s.* 6*d.*

	£	*s.*	*d.*
Stuart, Moody, Esq.	0	10	6

DUNFERMLINE.

REV. JAMES M. SHIACH, *Hon. Sec.*

May 18.—By cash.. .. .. 7*s.* 6*d.*

	£	*s.*	*d.*
Glass, Mr.	0	7	6

HITCHIN, HERTS.

JOSEPH POLLARD, Esq., *Hon. Sec.*

June 16.—By cash .. .. £2 2*s.* 0*d.*

	£	*s.*	*d.*
*a*Bathurst, The Ven. Archdeacon, M.A., Holwell Rectory, near Hitchin	0	10	6
*a*Hughes, H. Salisbury, Esq., Offley Place	0	10	6
*a*Lucas, Miss M.	0	10	6
*a*Priest, T., Esq., Ickleford, near Hitchin	0	10	6

LEAMINGTON.

REV. J. W. JOHNSON, M.A., *Hon. Sec.*

May 9.—By cash .. .. £1 1*s.* 0*d.*

	£	*s.*	*d.*
*a*Brandt, Miss	0	10	6
*a*Johnson, Rev. J. W.	0	10	6

LEEDS.

EDWARD ATKINSON, Esq., F.R.C.S., *Hon. Sec.*

May 24.—By cash .. .. £19 1*s.* 0*d.*

	£	*s.*	*d.*
*a*Baines, Sir Edward, St. Ann's Hill, Burley	1	1	0
*a*Baines, Fredk., Esq., Weetwood	1	1	0
*a*Brown, A. Kemp, Esq. (now *Hon. Sec.*), Richmond Road, Headingley	0	10	6
*a*Cornthwaite, Rt. Rev. Bishop, Springfield House ..	1	1	0
*a*Crawford, Mrs., 15, Blenheim Terrace	1	1	0
*a*Crowther, The Misses, Ash Villa, Newton Road ..	1	1	0
*a*Darwin, Francis, Esq., Creskeld Hall, near Otley ..	2	2	0
*a*Embleton, T. W., Esq., The Cedars, Methley ..	1	1	0
*a*Good, John G., Esq., 12, South Parade, Nottingham	1	1	0
*a*Harris, Miss, Oxton Hall, Tadcaster	1	1	0
*a*Harvey, Mrs., Spring Bank, Headingley	1	0	0
*a*Hey, Rev. John, Clifton Lawn, York	1	1	0
*a*Heaton, Miss, 6, Woodhouse Square	0	10	6
*a*Holmes, John, Esq., Holmeville, Roundhay	0	10	6
*a*Jowitt, John, Esq., Harchills, near Leeds	1	1	0
*a*Lowther, Sir Chas. H., Bart., Swillington House ..	2	2	0
*a*Rooke, Rev. Dr., Rawdon College	2	2	0
*a*Ryder, Chas., Esq., Westfield, Chapeltown	1	1	0
*a*Scatcherd, Mrs., East Keswick	0	10	6
*a*Willans, J. W., Mercury Office	0	10	6

LEICESTER.

REV. A. A. ISAACS, *Hon. Sec.*

May 2.—By cash .. .. £1 10*s.* 0*d.*

	£	*s.*	*d.*
*a*Isaacs, Rev. A. A.	0	10	0
*a*Nevinson, George, Esq.	1	0	0

LICHFIELD.

H. M. Morgan, Esq., *Hon. Sec.*

April 26.—By cash .. .. £3 5*s.* 6*d.*

	£	*s.*	*d.*
*a*Bridgeman, Mrs., The Close	0	10	0
*a*Gresley, Mrs. Chas., The Close..	0	10	0
*a*Hinchley, F., Esq., Netherstone	0	10	0
*a*Morgan, H. M., Esq.	0	10	6
*a*Pool, Rev. J., Hammerwick	0	5	0
*a*Richardson, J. C., Esq., City Mill	0	10	6
*a*Stokes, Rev. Huddleston, Wall Vicarage	0	10	0

MANCHESTER.

Rev. W. F. Birch, *Hon. Sec.*

June 15.—By cash .. .. £3 3*s.* 0*d.*

	£	*s.*	*d.*
*a*Birch, Rev. W. F.	1	1	0
*a*Chorlton, Thomas, Esq...	0	10	6
*a*Lowe, John, Esq.	1	1	0
*a*Rigg, G. Wilson, Esq.	0	10	6

NORWICH.

Rev. W. F. Creeny, M.A., F.S.A., *Hon. Sec.*

	£	*s.*	*d.*
May 29.—By cash	16	0	0
June 9.— „	1	1	0

	£	*s.*	*d.*
*a*Barrett, Rev. J. S.	1	1	0
*a*Creeny, Rev. W. F.	0	10	6
*a*Crookshank, Rev. G. A. ..	0	10	6
*a*Dix, Mrs. Chas.	0	10	6
*a*Eaton, G. C., Esq.	0	10	6
*a*Gilman, C. R., Esq.	1	1	0
*a*Harvey, E. K., Esq.	1	1	0
*a*Hildyard, Rev. F.	0	10	6
*a*Hildyard, Mrs.	0	10	6
*a*Hinds-Howell, Rev. Canon ..	0	10	6
*a*Hudson, The Rev. W. ..	2	2	0
*a*Kennion, Rev. R. W. ..	1	1	0
Ladyman, Mr. (Don) ..	0	5	0
*a*Manning, Rev. C. R... ..	0	10	6
*a*Norfolk and Norwich Library	0	10	6
*a*Patteson, H. S., Esq... ..	1	1	0
*a*Pigott, Rev. W. M.	0	10	6
*a*Ripley, The Rev. W. N. ..	2	2	0
*a*The Very Reverend The Dean of Norwich..	2	2	0

OLDHAM.

REV. J. L. CACHMAILLE, *Hon. Sec.*

May 3.—By cash .. .. £1 14*s.* 0*d.*

	£	*s.*	*d.*
*a*Cachemaille, Rev. J. L.	0	10	6
*a*Rowlands, John, Esq.	1	1	0
(Don.)	0	2	6

READING.

REV. W. BUTLER, *Hon. Sec.*

By cash .. .. £6 5*s.* 0*d.*

	£	*s.*	*d.*
*a*Bourke, Rev. C. T. J., St. Giles' Vicarage	0	10	6
*a*Brewer, Miss, 5, Victoria Square Road	0	10	6
*a*Garry, Rev. Canon, St. Mary's Vicarage	0	10	6
*a*Heelas, John, Esq., Whiteknights Park	1	1	0
*a*Monck, J. Bligh, Esq., Coley Park	1	1	0
*a*O'Reilly, Mr. W. T., Wyndham House, Crescent Road..	0	10	6
*a*Papillon, Major, Albion Place	0	10	6
*a*Sutton, Alfred, Esq., Greenlands	1	0	0
*a*Williams, Mrs. E., 4, Bath Road (1887–88)	2	0	0

STROUD, GLOUCESTERSHIRE.

T. S. OSBORNE, Esq., *Hon. Sec.*

	£	*s.*	*d.*
March 8.—By cash (per Mr. George St. Clair) ..	2	12	6
„ 20.—By cash (per T. S. Osborne, Esq.) ..	0	10	6
June 1.—By cash (per „ „ „) ..	4	14	6

	£	*s.*	*d.*
*a*Carpenter, J. H., Esq., Cainscross	0	10	6
*a*D'Ombrain, Rev. H., Uplands House	0	10	6
*a*Evans, Arthur, Esq., Hillsdon, Brimscombe	1	1	0
*a*Evans, Edward E., Esq., Brimscombe Court	1	1	0
*a*Fisher, W. H. C., Esq., Rowcroft	0	10	6
*a*Harper, James, Esq., Ebley	0	10	6
*a*Lancaster, Thos., Esq., Bownham House	1	1	0
*a*Marling, Sir W. H., Bart., Stanley Park	1	1	0
*a*Osborne, T. S., Esq., Lower Street	0	10	6
*a*Strange, S. M., Esq., 23, High Street	0	10	6
*a*Wilkinson, Rev. Joseph, St. Michael's Rectory, Tyndall's Park, Clifton	0	10	6

SYDNEY, NEW SOUTH WALES.

REV. ROBERT STEEL, *Hon. Sec.*

April 23.—By cash £1 0 0

*a*Short, Benjamin, Esq., 126, Pitt Street .. .. .. £1 0*s.* 0*d.*

LIST OF LECTURES

Delivered by GEORGE ST. CLAIR, Esq., *Lecturer for the Palestine Exploration Fund.*

1888.		£	*s.*	*d.*
March 19th.—West Bromwich		6	12	0
	Chairman: Councillor Heelis.			
,, 20th.—Southport		10	11	1
	Chairman: Rev. Canon Cross, D.D.			
,, 21st.—Huddersfield		4	3	0
	Chairman: Henry Barker, Esq.			
,, 26th.—Burnley		4	12	9
	Chairman: J. Langfield Ward, Esq., M.A.			
,, 27th.—Stretford		3	1	3
	Chairman: Rev. J. Hammond.			
,, 29th.—Rochdale		4	4	7½
	Chairman: Richard Watson, Esq.			
April 4th.—Nottingham..		7	12	5
	Chairman: H. E. Thornton, Esq.			
,, 5th.—Grantham		4	13	6½
	Chairman: Councillor Harrison.			
,, 6th.—Boston		10	12	6
	Chairman: Rev. Canon Blenkin, M.A., Rector.			
,, 9th.—Edgbaston		8	4	7
	Chairman: Alderman Johnson, J.P.			
,, 10th.—Abingdon		5	7	0
	Chairman: E. L. Shepherd, Mayor.			
,, 11th.—Wokingham..		7	2	5
	Chairman: Rev. E. Sturges, M.A., Rector.			
,, 12th.—Reading		6	18	6
	Chairman: Rev. Canon Garry, M.A.			
,, 16th.—Highbury		2	13	0
	Chairman: Rev. Dr. Edmonds.			
,, 18th.—Crouch End		5	8	11
	Chairman: Rev. A. Rowland, LL.B.			
,, 20th.—Forest Hill		6	17	6
	Chairman: Rev. W. Martin, M.A.			
,, 23rd.—Uxbridge		4	3	10
	Chairman: C. M. Wakefield, Esq.			
,, 24th.—Windsor		5	7	4
	Chairman: Rev. Canon Eliot, M.A.			
,, 25th.—Highgate		7	12	10½
	Chairman: W. P. Bodkin, Esq., J.P.			
,, 26th.—Basingstoke..		7	1	6
	Chairman: T. M. Kingdon, Esq., Mayor.			
,, 30th.—Oldham		16	2	4
	Chairman: S. R. Platt, Esq., J.P., Mayor.			

		£	s.	d.
May	1st.—Blackpool	3	0	6½
	Chairman: Rev. N. S. Jeffrey, M.A.			
,,	2nd.—Blackburn	8	0	2½
	Chairman: Right Rev. Bishop Cramer Roberts.			
,,	3rd.—Lichfield	6	13	9½
	Chairman: The Very Rev. Ed. Bickersteth, D.D., the Dean.			
,,	14th.—Hackney	9	3	6
	Chairman: Rev. T. Vincent Tymms.			
,,	15th.—Wimbledon	8	7	8
	Chairman: Col. Clarke.			
,,	16th.—Tunbridge Wells	8	16	3
	Chairman: Rev. J. Campbell Strickland, D.D.			
,,	17th.—Shepherd's Bush	4	18	0
	Chairman: Rev. C. Graham.			
,,	18th.—Redhill	7	4	3
	Chairman: The Mayor of Reigate.			
,,	22nd.—Bayswater	6	10	6
	Chairman: Henry Walker, Esq., F.G.S.			
,,	23rd.—Canonbury	5	15	10
	Chairman: Rev. H. Simon.			

LIST OF SUBSCRIPTIONS AND DONATIONS RECEIVED THROUGH GEORGE ST. CLAIR, Esq.

	£	s.	d.
West Bromwich.			
Britten, W., Esq.	0	10	6
Southport.			
Coop, F., Esq.	2	2	0
Wood, Dr. (Don.)	0	10	0
Huddersfield.			
Shaw, Geo., Esq.	0	10	6
Burnley.			
Lancaster, Wm., Esq. ..	0	10	6
Stretford.			
Lloyd, Humphrey, Esq. ..	1	1	0
Rochdale.			
Shaw, Wm., Esq.	0	10	6
Stevens, Mr. A. (Don.) ..	0	3	9½
Boston.			
Blenkin, Rev. Canon	1	1	0
Cleary, Rev. A. C.	1	11	6
Edgbaston.			
Player, John, Esq.	0	10	6
Grice, John, Esq.	0	10	6
Abingdon.			
Shepherd, E. L., Mayor ..	0	10	6
Wokingham.			
Thompson, Captain P. ..	1	1	0
Reading.			
Simpson, Rev. Joseph, M.A...	1	1	0
Garry, Rev. Canon (promised)	0	10	6
Heelas, John, Esq. (promised)	1	1	0
Highbury.			
Paton, A. R., Esq. (paid at the Office)	0	10	6
Crouch End.			
Clark, Albert, Esq. (sent to the Office)	0	10	6
Forest Hill.			
Mote, J. J., Esq.	1	1	0
Atkin, Edwin, Esq.	0	10	6
White, H., Esq. (sent to the Office)	0	10	6
Uxbridge.			
Taylor, Rev. J. C.	0	10	6

LIST OF SUBSCRIPTIONS.

	£	s.	d.
Highgate.			
Green, William, Esq.	1	1	0
Basingstoke.			
Windle, Rev. Wm. H... ..	0	10	6
Oldham.			
Platt, S. R., Esq., J.P. (Mayor of Oldham)	1	1	0
The Parish Church School ..	1	1	0
Carr, Rev. W.	0	10	6
Blackpool.			
Wayman, Rev. J.	0	10	6
Blackburn.			
Grosart, Rev. Dr.	0	10	6
Lewis, H., Esq.	1	1	0
Marsden, J. W., Esq.	0	10	6
Lichfield.			
Barnes, Rev. Thos.	0	10	6
Hackney.			
Mathieson, Geo., Esq... ..	1	1	0
Sadler, F. A., Esq.	0	10	6
Wilson, P. C., Esq.	0	10	6
Wimbledon.			
Bell, Rev. E.	0	10	6
Clarke, Colonel..	0	10	6
Tunbridge Wells.			
Atkinson, Miss Mary	1	1	0
Delves, Miss Rose	1	1	0
Wigner, J. M., Esq.	0	10	6
Shepherd's Bush.			
Dale, Albert A. M., Esq. ..	0	10	6
Strutt, Wm., Esq.	1	1	0
Whiteman, Frank G., Esq. ..	0	10	6
Redhill.			
Crosfield, J. B., Esq.	0	10	6
Gilford, Wm., Esq.	1	1	0
Sells, Vincent Perronet ..	1	0	0
Bayswater.			
Barron, W., Esq.	0	10	6
Short, John, Esq., Junr. ..	1	1	0
Measor, Robt. F., Esq. ..	0	10	6
Tuckwell, Rev. J.	0	10	6
Canonbury.			
Fiske, Mr. and Mrs. Charles T.	1	1	0
Simon, Rev. Henry	1	1	0
Smith, Thos., Esq.	0	10	6
Morpeth.			
Grey, Rev. Canon	1	1	0

LIST OF LECTURES

Delivered by Rev. Henry Geary, *Lecturer for the Palestine Exploration Fund.*

	£	s.	d.
1888.			
January 27th.—Wandsworth Road	3	0	0
March 22nd.—Chislehurst	3	3	9
„ 23rd.—Swanley	1	0	10
Mrs. Edgill (Don.), Swanley Vicarage ..	0	10	0

SUMMARY.

	£	s.	d.
Donations and Subscriptions	134	17	7
Local Societies	96	9	0
Lectures—Proceeds of	33	11	6
Maps and Memoirs	53	19	10
Books	158	7	6
	£477	5	5

ERRATA.

January *Quarterly Statement.*

For Cox and Co., *read* Major-General F. B. Maingay.

April *Quarterly Statement.*

General List.

For Rev. D. R. Bell, *read* Rev. W. R. Bell.
For Rev. George Studdul, *read* Rev. George Studdert.

Aberdeen List.

For T. Murray Gardner, Esq., *read* T. Murray Garden, Esq.
For Miss Fanny Davidson, *read* Miss Mary Davidson.

LIST OF HONORARY SECRETARIES AND LOCAL ASSOCIATIONS.

ALLOA: Dr. Thomas Milne, 17, Mar Street.
ABERDEEN: Rev. Prof. Milligan, D.D., The University. *Hon. Sec.* Ladies' Association, Miss Mary Forbes, Freshfield, Cults.
ADELAIDE: Rev. W. R. Fletcher.
ANSTRUTHER: H. B. Mackintosh, Esq.
AUCKLAND (NEW ZEALAND): Rev. J. Somerville.
AYR: Robert D. Murdoch, Esq., Fairfield Lodge.
BATH: General Warren Walker, R.E., Tilehurst, Sion Hill.
BELFAST: Rev. Dr. Porter, the President of Queen's College.
BISHOPS WALTHAM: Rev. H. R. Fleming, Corhampton Vicarage.
BLACKBURN, LANCASHIRE: Rev. A. B. Grosart, Lower Bank, 70, Preston New Road.
BLAIRGOWRIE: W. S. Soutar, Esq.
BODMIN: S. Hicks, Esq., The Asylum.
BOLTON: George Monk, Esq., 59, Chorley New Road.
BRIGHTON: Rev. C. E. Douglass, 14, Clifton Terrace.
BURNLEY: Alfred Strange, Esq., Craven Lodge.
BURY: *Hon. Treas.*—Rev. Canon J. Hornby, Rectory.
CANADA: Toronto.—Subscriptions are received by the Hon. G. W. Allan.
CHELTENHAM: Dr. E. Wilson, Westal.
CHIPPENHAM: A. T. Keary, Esq.
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CROYDON: J. W. Janson, Esq., The Close, Park Lane.
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DEVONPORT: J. Venning, Esq.
DOVER: E. Wollaston Knocker, Esq., Castle Hill House.
DUBLIN: Rev. G. T. Stokes.
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DUNFERMLINE: Rev. J. M. Shiach, The Free Abbey Manse.
DUNLEER, Co. LOUTH: Rev. F. G. McClintock, Drumcar Rectory.
EASTBOURNE: Rev. H. R. Whelpton.
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EPSOM: Miss Hislop, High Street.
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FROME: C. W. Le Gros, Esq.

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GUILDFORD: Colonel Paske.
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HITCHIN: J. Pollard, Esq., High Down.
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HUDDERSFIELD: Henry Barker, Esq.
HULL: W. Botterill, Esq., 23, Parliament Street.
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KIRKCALDY: Henry Morton Barnett, Esq., 17, Townsend Place.
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LARKHALL: Rev. William Findlay, A.M.
LEAMINGTON: Rev. J. W. Johnson, M.A., 32, Avenue Road.
LEDBURY: Rev. F. Salter Stooke-Vaughan.
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OLDHAM: Rev. Alfred J. L. Cachemaille, The Parsonage.
OXFORD: Rev. Canon Girdlestone.
PERTH: John W. Jameson, Esq.
PITLOCHRIE: Hugh Mitchell, Esq.
PLYMOUTH: J. B. Rowe, Esq., J. Shelly, Esq., and H. B. S. Woodhouse, Esq., 10, Portland Square.
PWLLHELI: Rev. Owen Jones.
READING: Rev. W. Butler, 13, Victoria Square.
RUGBY: Rev. A. O. James.
RUNCORN: Rev. W. Preston, M.A.
SALISBURY: J. Lardner Green, Esq., M.R.C.S.
SCARBOROUGH: T. H. Phillips, Esq., 22, Albemarle Crescent.
SHEFFIELD: *Chairman*—Rev. Canon Blakeney, Vicar of Sheffield.
SHREWSBURY: Rev. C. H. Drinkwater, St. George's Vicarage.
SOUTHAMPTON and ROMSEY: Rev. Henry C. Hawtrey.
SOUTHPORT: Mr. R. Penty, 44, Linaker Street.
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	£	s.	d.
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THE JAULÂN.

Surveyed for the German Society for the Exploration of the Holy Land,

BY

G. SCHUMACHER, C.E.

Author of "Across the Jordan."

Translated, by permission, from the Transactions of the German Society.

WITH ALL THE ORIGINAL MAPS AND ILLUSTRATIONS.

LONDON:
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Publishers in Ordinary to Her Majesty the Queen.

1888.

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PREFACE.

THIS work is translated from the *Zeitschrift* of the German Society for the Exploration of the Holy Land. We have to acknowledge with gratitude the permission accorded by the Committee of that Society to translate and reproduce the work with all its original illustrations. It will be found a worthy pendant to Captain Conder's works. The notes are mostly those furnished by Prof. Socin for the original edition. The spelling has been chiefly conformed to the usual practice in the published works of the Fund.

1, ADAM STREET, ADELPHI,
March, 1888.

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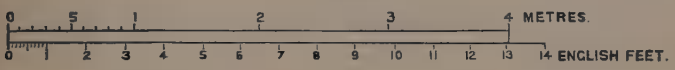
LIST OF ILLUSTRATIONS.

As the measurements in the illustrations have been made in metres, a scale of metres and English feet is given, showing their proportional values.

Scale.



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NOTE.—For Sections of the Country and other descriptions of places mentioned in this work, *see* 'Across the Jordan,' by the same author.

THE JAULÂN.

A.—INTRODUCTION.

THE Jaulân and Gaulanitis are names for one and the same tract of country in the middle of the now Turkish province of Syria. In the west, bordered by the Jordan fissure, it forms at the same time a part of the so-called East Jordan land, or Eastern Palestine. The Old Testament speaks of a place in Bashan, in the jurisdiction of the Manasseh tribe, called Golan (Deut. iv. 43), which in Joshua xx. 8, is mentioned as a free city, and in 1 Chron. vi. 71, as a Levite city. This probably answers to the present Sahem ej-Jaulân in Western Haurân.* Josephus (1 Wars, iv. 4) calls the place Golan, and the surrounding country Gaulanitis.

After the death of Herod the Great it must have been given over to the Tetrarch Philip, and was at

* Comp. Schumacher, 'Across the Jordan,' p. 91.

this time in its most flourishing period : a large number of towns covered the middle and northern part of the western slope, which, though stony, was well watered and rich in pasture land. Some of these, as Seleucia, Sogane, and Gamala, were turned into fortifications according to Josephus (2 Wars, xx. 6). The discovery of various extensive ruins, which preserve their Roman names at the present day, place the former prosperity of these towns beyond doubt.

The remains of many of these old ruins, as will be seen by the following description, are of undoubted Jewish character; and their architectural characteristics prove that the Jewish capability could make itself freely felt even near Roman superiority.

During the Byzantine dominion over Gaulanitis, Harit V. el-'Araj (530–572), called by the Romans Aretas, and the most distinguished of the Ghassanidic Phylarchs, was placed by Justinian at the head of all the Arabian tribes in the Byzantine jurisdiction, which comprehended Haurân and Damascus, as well as the bank of Jordan, and therefore the Jaulân and the Belka.

Already earlier, under the predecessors of that Prince, viz., 'Amr I. (248–263) I. (248–263), Jabala I. (330–360), Ma'ura, the spouse of Harits II. (360–373), the Christians had founded settlements in the East Jordan land, and especially monasteries, which at that

time were more frequently established in what is now called the Haurân than in the Jaulân. But owing to the invasion of Syria by the Persian king, Chosroes II., in 616, Christianity suffered a relapse, and this, coupled with the sect-hatred and party feeling of the Patriarchs of Constantinople, prepared the ground for the new teaching and sovereignty of Islam. The probably Persian name, Telestan, applied to the northern part of the country, is a memorial of the conquest of the Jaulân by Chosroes.

After the sanguinary defeat of the Byzantines at the River Yarmuk (634), in the southern extremity of the Jaulân, this land, with the whole of Syria, fell into the hands of the Arabs, who, however, have only perpetuated themselves here by monuments of mean architecture, although they may have kept the country itself at its highest state of existing culture. Nevertheless, internal dissensions amongst the Moslem rulers added to the perpetual changes of succession, produced a retarding influence on the quiet progress of development, and when the armies of the Crusaders entered Syria they found a country whose decay had already commenced.

In Baldwin II.'s reign (1118), the sway of the Cross was again extended over the Jaulân. Whether the numberless crosses and Christian emblems which are found upon the ruins of the Jaulân date from the time of the Frankish rule, or that of the earlier Christian

period, is difficult to determine ; they may probably be ascribed partly to one and partly to the other, as they appear in Nu'aran, one of the cities mentioned in the history of the Crusades ('Ritter, Erdk.' xvi. p. 169), and also in proximity to el-Ahmediyeh, near the name Ioxctin (Justinian ?). From the decline of the Christian sovereignty in the Jaulân, and its reconquest by the Moslems, down to modern times, there is little to relate.

Through invasions of the Mamelukes and Mongolians in Syria the country seems to have sunk lower and lower, and to have become in time the favourite resting-place of the nomadic Bedawîn tribes, who had no interest in the preservation of buildings, or the guarding of firmly established abodes, whilst in the plundering and subjection of the few remaining settlements they found their pleasure and advantage. In the year 1518 the Osman Sultan Selim I. took Syria, and therewith also the Jaulân, from the Mamelukes, and bound it to the Turkish kingdom, to which it has belonged till the present day.

The name of the country has never been altered in all its changes of rule and circumstance, and the individual sounds remained the same, only the pronunciation of the first consonant (g) has softened in the usual way, and the diphthong of the first syllable (au) is in the vulgar tongue of to-day, as formerly in the Old Testament, contracted into (o).

The following description mainly refers to the tract of land which is identical with the ancient Gaulanitis. Its boundaries are for the most part so clearly defined by nature that they have nearly always remained the same, with the exception that in the east the present demarcation is scarcely the old one, because on this side it was constantly altering according to the judgment of the existing Mutasarrif or Governor of the Haurân, and was sometimes removed further back, and again sometimes more forward, into the wide high plateau. As the surveyed map was to serve also as a plan for railway communication between 'Akka and Haifa, the sea-coast towns of Haurân and Damascus, it had the approval of the Vali, or Governor-General of Syria. So that to its author was granted the assistance of the officials belonging to the Liva of Haurân and the Kada el-Kuneitrah. He was consequently able to compare their opinion upon the orthography of the names of places with those collected in the places themselves, as well as to fix the boundaries of the district according to the testimony of the revenue officers.

The triangulation of the most important points was made by means of a theodolite. In the ground survey a water-level was used, and a Koniograph prepared by Herr D. O. Kersten, and very kindly left by him for this purpose, for which important service I must render this gentleman my best thanks.

The heights were obtained by an adjusted aneroid barometer, whilst the sea-level of the Lake of Tiberias —682·5 was considered the basis of my calculations. The divisions into degrees of length and breadth, as well as the triangulation, were finally executed and joined on to the large Map of the English Palestine Exploration Fund (Map of Western Palestine), for which triangulation I had plenty of material at my command. The scale of the map is that of the English map, viz., 'one inch to a mile.'*

The examination of the ruins could only be done disjointedly, according as the object of the work above pointed out permitted. I cannot, therefore, unconditionally guarantee an uninterrupted completeness in the description of the ruined places with which the Jaulân is simply swarming, for in addition to this the great distrust exhibited by the natives against travellers increases the difficulties of the examination of the land. The natives from fear of new taxes took care to conceal almost everything, so that information and guides could only be reached by threats of prison, and, as a rule, the discovering of ruins had to depend entirely upon myself.

A further difficulty consists in establishing the orthography of the names, for only very few of the Bedawîn are acquainted with writing, and this always

* To accompany this work it has been reduced to the scale of $\frac{3}{8}$ of an inch to a mile.

in so imperfect a manner that one comes upon glaring mistakes at every enquiry. The only thing that remained to me—most of the official books at these ruined places being missing—was to put frequently the same questions bearing on this to the different tribes, and to settle the orthography from their answer.

Guides acquainted with the language who hang about in the towns, Tiberias and Safed for instance, I hold as having very little weight as authorities on the orthographical correctness of the names,for it is exactly these persons who, from ignorance of the country and grammar, and above all 'pour vous faire plaisir,' make assertions which by observation at the places themselves are proved incorrect. The Khâtib, or scribe of a village, is still often, in spite of his simplicity, the most trustworthy source of help.

I was also careful, in drawing up the list of names of the places, to rigidly adhere to the original nomenclature, and not to be led into error by attempts at etymology.

Owing to the swampy river prevailing there in summer time, the Huleh marshes were not visited ; therefore the already-mentioned Sogana, presumably on the west of Jaulân (Josephus, 4 Wars, i, 1), is not marked on the map. Also the small northern end of the Sharah of Jaulân, near Baniâs, which includes a part of the southern slope of Hermon, had

to remain unexamined. It may be here remarked that the ez Zawîyeh esh-Shurkîyeh of south-east Jaulân, a district inclosed by the Yarmûk, Rukkâd and 'Allân rivers, with also the neighbouring country to the east, has been already set down by me on a map, and published by the English Palestine Exploration Fund, on the scale of $\frac{3}{8}$ of an inch to a mile, in the book, 'Across the Jordan,' 1886. At my first and more superficial journey through the Jaulân and the Haurân, in December, 1883, the Nahr er-Rukkâd was pointed out to me as the boundary between the Jaulân and the Haurân; and I consequently agreed that the survey of the Jaulân should extend to Nahr er-Rukkâd in the east. Later, however, it transpired that the Nahr el-'Allân was regarded as the boundary line between the two districts. As a result of this mistake, the following report and illustrating map do not include the whole of the Jaulân. Nevertheless, recently the place Sahem ej-Jaulân, which in 1884 was in the administrative jurisdiction of the Jaulân, has again been handed over to the Haurân seat of government in Sheikh Sa'ad. Thus the extent and jurisdiction of the one district of Haurân is still not definitely settled.

As to the orography of north Jaulân, I shall limit myself to observations made on my first journey; for this district formed the basis of the researches of my honoured friend and co-traveller, Herr Dr. Fritz Noeblung, in the year 1885, and will be given in

detail in his geological description. With reference to the historical dates obtained by individual information at the places visited, in the absence of other literary testimony, I had to content myself with the use of the following works:—

Josephus, in the English Translation of William Whiston (Oxford, 1839); Ritter's 'Erdkunde,' vol. xv., which contains an abstract of the important journeys of Burckkardt and Seetzen ; Gustav. Flugel's 'History of the Arabians' (Leipzig, 1864), and Baedeker's 'Palestine and Syria' (1875). I leave the reader to draw from the collected material of descriptions, &c., further conclusions upon the historic past of the places treated here.

B.—POSITION, EXTENT, LIMITS, AND ADMINISTRATION OF THE JAULÂN.

The entire area of modern Jaulân, including ez Zawîyeh esh-Shurkîyeh and Sha'rah in the north, is about 560 square miles. By the Jaulân is meant only the high plateau and a part of its declivity, viz., the north-west portion sloping from the Huleh marshes: and bounded in the west by Jordan, south-west by the Lake of Tiberias, north by the declivities of Hermon and the Wâdy el-Adjam, north-east by Jedur or Nahr er-Rukkâd, and east and south by Haurân or the Nahr el-Allân, and in the south by 'Ajlûn or the

River Yarmuk. Politically, the Jaulân forms one of the administrative districts (Kaimakâmîyeh) of the Sanjak or the Liva of Haurân (with the seat of government of a Kaimakam in el-Kuneitrah), and as such is under the Mutasarrif of the Haurân at Sheikh Sa'ad.

The Jaulân itself is divided into four districts: (1) Mu diriyeh esh-Shârah (in the north), chief town and residence of the Mudir is Mejdel esh-Shems; (2) el-Kuneitrah (in the centre), chief town and residence of the Kaimakâmîyeh is el-Kuneitrah; (3) ez Zawîyeh el-Ghurbiyeh (south), chief town and residence of the Mukhtar is Kefr el-Ma; (4) ez-Zawîyeh esh-Shurkîyeh, (east), chief town and residence of a Mukhtar is esh-Shejarah.

The Mudîr and Mukhtar are inferior officials of the Kaimakam. The Mukhtars, properly only village magistrates, have to look after the punctual payment of the taxes, and are responsible for them. They receive no salary, and must even support the government officers whilst on their expeditions; but they are at the same time exempt from taxation, and may present an account in el-Kuneitrah for the fodder consumed by the horses of the gen-d'armes, which is discharged according to the letter of the law. The heads of the chief families of the country, the village sheikhs of Fîk, Skufîyeh, Kefr el-Ma, el-'Al, Khisfin, and esh-Shejarah, form an administrative council;

these, with occasionally a representative of the Jerkessen and Bedawîn tribes, compose a council side by side with the government official. The first are, however, usually represented by the village Sheikh Kefr el-Ma, who therefore counts for the fourth member of the proper Mejlis el-Idara (conseil administratif). The Mudir of Mejdel esh-Shems ought properly to be an independent official; for the most part he receives his instructions from el-Kuneitrah. Meanwhile a plan appears to have been projected to separate this Mudîrîyeh from Jaulân, and to assign it to Merj 'Ayûn.

The entire armed force of Kada el-Kuneitrah consists of from fifteen to twenty mounted gen-d'armes (Khaiyal el-Mîreh), an officer and a police soldier: which is quite enough in times of peace to settle the small feuds between the tribes, and maintain authority of the government.

C.—THE NATURE OF THE GROUND, PLANTS AND ANIMALS, IRRIGATION AND CLIMATE, OF THE JAULÂN.

According to the nature of the soil, the Jaulân may be divided into two districts: (1) stony in the northern and middle part, (2) smooth in the south and more cultivated part. Both divisions form a part of the great high plateau, which, in the widest sense, is

known as Haurân : and which extends from Hermon and Damascus on the south to the Steppe Hamâd and 'Ajlûn, eastward to the Syrian Desert and Jebel el-Drûz, and westward to the Jordan.

The plateau of the Jaulân, commencing at a height of 974 feet in the south (Shâfât Mobarah), gradually reaches a height of more than 3,625 feet in the north (Merj el-Buk'âti), independently of the volcanic mountains, which reach a height of 4,244 feet, and has therefore an average height of 2,950 feet above the level of the Mediterranean Sea, or 3,632 feet above the Lake of Tiberias.

In its diagonal direction the land makes a quick (and as a consequence of the lava stream) terrace-like ascent from the western Jordan slope, from an average height of 1,640 feet in the east to a watershed of 3,000 feet in between the foot of the Tell Abu en-Nedâ and the Hami-Kursu. It then slopes towards the bed of the Nahr er-Rukkâd, and again ascends east of this latter towards Haurân. The highest point of the plateau lies in the north, whilst in the south-west corner of ez Zawîyeh el-Ghurbîyeh, consequently at the further extremity of Jaulân, the lowest part is found.

Taking Shârah and Ghôr into consideration, there is a matter of the significant difference in height of + 4,460 feet (about Mejdel esh-Shems), and — 656 feet (Ghôr at ed-Duer), that is a difference of 5,116 feet.

Stony Jaulân (esh-Shârah, el-Kuneitrah and the upper part of ez Zawîyeh esh-Shurkîych) is an altogether rough and wild country, covered with masses of lava which are poured out from the countless volcanoes and spread in every direction. Although of little use agriculturally, it is all the more valuable as pasturage for the numerous herds of the Bedawîn, and serves as the ideal of such a 'land of spring pasturage,' Belâd er-Rabi. Wherever between the hard solid basaltic blocks there is a spot of earth, or an opened rift visible, the most luxurious grass springs up both in winter and spring time, and affords the richest green fodder for the cattle of the Bedawîn; for this part of the Jaulân possesses a great source of wealth in its perennial springs, so that the heat of summer never scorches all the vegetation, and round the springs there is always a fringe of green. A man travelling through the country at two different periods of the year, say about August or September, and then in February or March, would scarcely recognise it. In summer, bare masses of stone block up the road and hem the traveller in at every step, and the country is of a monotonous dismal character; whilst in the spring the former, as well as the heaps of ruins, are overgrown with grass to the height of a man. Then the myrtles and oak bushes are no longer alone in springing out from the lava blocks; the ruins have disappeared, the land is clothed

in verdure, and it is only the stumbling of the beasts on the impassable road, the ascent of ever fresh blocks of rock, and a glance at the characteristic conical-shaped rows of volcanoes, which brings to the traveller the conviction that he is treading the same Jaulân under a different aspect. As a consequence of the efflorescent volcanic lava and deposited ashes the soil is very productive, and besides grass, wheat, and barley, peas (Hummus), lentils, beans, camel fodder (Kursanneh), white maize and yellow maize flourish. There is thus a large space which is comparatively stoneless; for instance, the plateau near the watershed, which is bounded by the mountains Tell el-Baram, Tell el-Urâm, Tell Abu en-Nedâ, Tell Abu Yusef, the spurs of the Hami Kursu and the Tellul el-Mukhfy, and which is tended and cultivated by the Jerkessen. Even the crater of the mighty Tell Abu en-Nedâ is cultivated, and said to bear most valuable produce.

Recently, in the lowlands of the Huleh lake, where there is no lack of water, rice has been sown, the quality of which leaves nothing to be desired, and which forms a more lucrative article of commerce than grain—the Haurân soil appearing to have been made for its successful cultivation. The yellow, so called European maize (dura franje, or safra), is again sown in the latter part of summer on the well-watered places of the plateau, and thus the land yields a double crop. An excellent quality of

tobacco flourishes in the north country near Za'ôra; it is concealed in beds of manure so as to elude detection by the officers, and as soon as the leaves wither the inveterate Bedawîn smokers use it unprepared.

A few years back stony Jaulân must have been covered with a thick growth of forest trees. This is proved by the names Shâfât es-Sindianeh, 'oak top,' and the designation formerly given to the volcanoes Tellul el-Hish,* 'an ambush'; the still extensive oak woods at the foot of Tell Abu en-Nedâ and Tell Abu el-Khanzîr, the thick oak underwood of the declivities of Tell el-Ahmar, Hami Kursu, Shâfât es-Sindianeh, and the beautiful oak trees which singly and in groups cover the low plateau in the north of the Batihah. Throughout the north the evergreen oak is of the Sindian (stone oak) kind, with small prickly leaves and little acorns. The Mallul kind is rarer. Whilst in the north of the Batihah there is a kind of winter oak (Quercus ægilops) to be found with a thick rough bark and smooth large oak-apples in wide shallow cups. Of other trees we find the evergreen Butmeh (Pistavia terebinthia), which is widely distributed. These are mostly found in the vicinity of the oaks, but are

* Burckhardt has made this name known under the form of "Hersch." (Comp. 'Burckhardt's Journey,' i. 438. J. G. Wetzstein, d. Batanäischi Giebelgebirge, 1884, 10 f.)

easily distinguished by their most beautiful growth and better and stronger shade. A single butm is often found alone in the midst of fields shading the grave of some holy Moslem. It then receives the surname Fakîreh ('poor'), is thereby safe from all outrage, and can attain unmolested a great age. No Moslem would dare to break off a branch or even remove a withered twig, for the saying goes that such a deed would bring upon it heavy divine punishment.

In proof, the Bedawîn Fellahîn relate with alacrity many examples to the traveller, as for instance, one man, after some outrage on the Fakîreh, broke his arm; or the donkey, carrying the sacred burden, fell down dead; or the room in which the wood was stored fell in and injured the possessor; in fact, never once was a branch bent down but it called up the judgment of the divine wrath. Once, when a Fakîreh standing in a village obstructed my inspection, I asked my guide either to break off or bend down one of the branches; but neither requests nor threats availed, and on undertaking the matter myself I saw the simple-minded Fellahîn regarding me with horror and awaiting the fate that was to overtake me. A similar deed is, however, not to be recommended to a traveller, unless he is furnished with good recommendations from the Government. Another kind of lore is the Zârûra, or white thorn, which, however, like the myrtle growing on the slopes of the Wâdy

Dabûra, is rarer. Along the watercourses, and without exception in the ravines of the wâdies conveying water, we find the perpetually blooming rose-coloured oleander (Difleh), the wild fig (Tineh), and less frequently the tamarisk (tarfa), the plane tree (dulba), the carob bean tree (kharrub), and the wild vine (dalieh pl. dawâlî). Reeds, Kasab or Kuseb, often entirely clothe slopes where there are small gushing springs. On the western slope of central Jaulân (Dabûra) liquorice (?) (Umm es-Sûs) root is found very plentifully. Stony Jaulân, as indeed the entire plateau, has very few fruit trees. One scarcely sees, even in the villages, a Rummaneh (pomegranate bush) or a fig tree; Za'ôra, and 'Aîn Fit are exceptional. The Circassians are also beginning to cultivate trees, although they greatly prefer the cultivation of pasture-land; but still every now and again in el-Kuneitrah one finds trees bearing fruit. On the other hand, these same Circassians are rapidly lessening the oak woods, as they cut down the fine trunks and carry them on their horrible squeaking two-wheeled carts, drawn by oxen, to sell as timber. One such I recently met in South Haurân, where for centuries no cart can possibly have traversed the stoneless ground.

An attempt at vine cultivation was recently made by the Emir of 'Arab el-Fadel in the neighbourhood of Skêk, but his kinsmen apparently preferred

resting under a shady pavilion to the work of the vineyard.

The slopes of the plateaus towards the Jordan and the Lake of Huleh are tolerably steep, and as their tops are crowned by rugged blocks of lava, which decompose piece-meal and roll down below, the last part of the ascent is most difficult.

The wâdies resemble narrow, and often frightfully deep, chasms, and into their yawning depths rush seaward flowing streams. One of the deepest and steepest of these channels is the Wâdy el-Yehûdîyeh, near the ruin of the same name. The walls, which are basaltic in the upper division, and composed of limestone in the lower, are perpendicular, often indeed overhanging, and with a width of 656 feet in the upper part of the wâdy, attain a height of not less than 492 feet.

What finally distinguishes stony Jaulân from the southern, and also the Haurân plateau, is the large number of extinguished volcanoes.

One group of these is found in the east, near the Rukkâd, with the rocky el-Kulei'âh crater as the most southern point, and ending in the north with the Hâmi Kursu, the lava of which reaches el-Kuneitrah.

The most marked and well known of their summits is Tell el-Fâras, 3,110 feet high, whilst the Hami Kursu reaches a height of 3,930 feet. Tellul el-Humr

and Tellul el-Asbah lie somewhat east. A second group extends almost as a continuation of the first in a north-west-northerly direction from el-Kuneitrah to the Birket er-Râm. At first a low hill range, they reach, at Tell esh-Sheîkhah, a height of 4,245 feet. There is a third group, which joins the second one in the north, surrounds Merj el-Buk'âti, and runs parallel to the first in a southerly direction to Tell Abu Yûsef. 3,375 feet, making this the most southerly spur. The largest and most interesting peak of this group is Tell Abu en-Nedâ, with a maximum height of 4,124 feet; very well marked, though subordinate, is the Tell el-Urâm, 4,042 feet. Further, the small Tell el-Baram, 3,720 feet, and the peak Tell el-Ahmar in the north, 4,060 feet, whose lava stream reaches the slopes of the marshes of Huleh.

In the south, somewhat westward, the double-peaked Tell Abu el-Khanzîr, 3,819 feet, rises. Besides these high and extraordinary cone-shaped craters, there are the low hills of er-Rumsaniyeh, Tell el-Talâyâ, Umm ed-Danânîr, and Tell el-Ferj. These follow the extended course of the third group towards the south, and finally the Tell Jôkhadar ends them. This latter is equally distant south with el-Kulei'âh, but 2 miles more west from the chain of volcanic groups, which includes a length of 20 miles by a breadth of 2 miles. In earlier descriptions of travels these mountains of

north Jaulân are distinguished by the general name of 'Tellul el-Hesh,' or 'el-Hish,' but careful inquiry on this point proves that if this name has not entirely disappeared from the memory of the people, it is very rarely known. I have, therefore, not written this name on the map. Although these volcanoes ought to be carefully considered in a detailed account of the places and names of Jaulân, I shall nevertheless refer again, readers, so far as their geological connection with upper Jaulân is concerned, to the detailed geological examination by my travelling companion, Dr. Noeblung, to which I have appended my testimony concerning the craters of Tell el-Fâras and Tell Abu en-Nedâ.

South Jaulân—that is, ez Zawîyeh el-Ghurbîyeh—is, in opposition to North Jaulân, from Khisfin onward, stoneless. The lava-rock surface gradually disappears, and in its place is a rich dark-brown lava soil, which is prevalent in the whole of the Haurân, and the fertility of which cannot be too highly praised. Grain—*i.e.*, wheat and barley—flourish here in large quantities, and with Turkish maize (*dura*) and Simsim are almost the exclusive cultivations. On the other hand, there is less pasture-land in the level plains of ez Zawîyeh el-Ghurbîyeh, and the grass withers very quickly in summer. As perennial springs are lacking in the high plateau, the villages are mostly built on the edge of the plateau, where

abundant springs are to be found to this day. Instead of the tent Bedawîn of the north-west stony Jaulân, we find in the Zawîyeh colonized peasants, who have established large villages and cultivated the ground as much as their primitive agricultural implements permit. Much good land, therefore, lies fallow, for the Fellahîn only cultivate an area round their village which is not too large for them to reach and cultivate in a day. How many thousands of acres are languishing for rational cultivation, and how easy it would be in this wide, healthy, high plateau of Jaulân and Haurân, to develop a settled industry which would yield valuable results!

The culture on the high plateau of South Jaulân is nearly extinct. The eye seeks in vain for a shady branch, although it may occasionally happen that one's wish is gratified by a terebinth (butm) hung with gay-coloured rags, which have been devoted to the Neby (Holy One) by distressed women and sick persons; these, however, may be counted. On the slopes, however, and wherever the axe does not reach, there is a more flourishing plant growth.

The wide smooth Wâdy Masâûd show a really fine amount of oak trees, which reaches to the high plateau, bordered by the Yarmûk in the extreme south-west corner of Jaulân. The Kûlât el-Husn is also covered with beautiful isolated oaks and tere-

binths (butm). The Wâdy es-Semakh grows, beside some oaks and terebinths, a thorn-bush called Sidr, and a stroll along the narrow east-coast strip of Bahr et-Tûbarîya soon brings us to the Dom-bush, which has thorns bent inwards, and which seems peculiarly indigenous to the Jordan valley and the land round the Lake of Tiberias. There is a distinction between two kinds of these Dom-bushes, viz., Dom-sidr and Dom-rubet (? red); both have small light-green thin leaves similar to the terebinthus foliage, and bear a delicious hawberry kind of sweet fruit, which are eaten with appreciation by the Bedawîn, and also gathered and sold in the cities. In the upper Jordan valley the Dom-bush seldom attains a greater height than 13 feet, and never ceases being green, blooming, and fruitful, so that the traveller in the hot Jordan valley has at least one enjoyment. Although it is the only shade-affording plant of the upper Jordan valley, a man only avails himself of its shelter from necessity, for the slightest breath of wind brings the malicious thorns in contact, which, in spite of the greatest caution, manage to bury themselves in the dress and skin of the rester. The wood is white, and extraordinarily hard and tough.

In fruit trees, also, the ez Zawîyeh is poor; it is only in the village and Wâdy Fîk, and in the tributary, Wâdy Abûd, that we find beautiful olive groves.

These are cultivated by the inhabitants of Fîk, and produce a good yearly crop, which supplies the surrounding country with olive-oil, so rarely met with in Haurân.

On the western declivities of ez Zawîyeh, towards the sea, Kharrub and Abhar bushes (lilac, Styrax officinalis, according to the 'Memoirs' of the Palestine Exploration Fund) grow singly; and in the Yarmûk and Rukkâd valley are oleanders, plane trees, wild grapes, and canes. The villages have some pomegranates and fig trees.

In spite of this absence of wood growth in the southern high plateau, it may be assumed from tradition, and the names still existing, as Sirb el-Butm, Sirbit el-Khararib (Terebinthus and Kharrub woods), Enjum el-Butm, Enjum el-Abhar (Hill of Terebinthus, Hill of Lilac), from the single old trees still extant, that the wood growth of the high plateau was at one time in a better condition. The climate and soil are no hindrance to increased growth of the trees; but the natives, with the aim of being comfortably warm in winter, cut down everything they can reach, without an idea of substitution. The wood-saints of the villages sufficiently prove that fuel is considered a treasured article on the plateau. For the absolute security of the stock of wood laboriously collected during the summer months, it is stored as near as possible to one of the holy graves by

the Mujjenneh, Wely, or Makam, which are present in every village; no one dares then, with the exception of the foreign traveller's cook, to lay a trespassing hand on the treasure. It is more secure there than in the owner's hut; and for the same reason agricultural implements are deposited near to the Neby.

The declivities of southern Jaulân to Lake Tiberias and the Yarmûk, or Sheriât el-Menâdireh, are throughout steep in the upper part. The high plateau is sharply edged by a layer of 'Hummus,' covered with fragments of lava. Great blocks disintegrate from the upper layer and roll into the valley, or mass themselves on the third division of the terrace-shaped declivities. The middle portion of the slopes is less steep; it consists of the sloping heaps from the upper terrace, and has gradually spread itself out to a 'Hummus' layer which has been shot down from the high plateau. Mountain slips are not unfrequent. Finally, the lowest portion, viz., down to the Sea of Tiberias, is composed of a multitude of rubbish cones, with little water channels in between—a formation caused by the loosened masses of mountains from above. In the Yarmûk valley, instead of cone-heaps, are basaltic walls 98 feet broad, bordering the river; but here, too, the terrace formation is clearly visible.

The declivities in the Batihah are smoother to ascend and less steep.

The most important animals in the Jaulân are soon disposed of. Besides the jackal (Wâweh) and the hyena, a wolf with grey fur is to be met with. I met such a one in December, 1883, in the neighbourhood of Kefr el-Ma, probably come down from Hermon. In the ruined places especially are a plentiful number of Syrian foxes, called Abu Ahseineh, with their reddish-brown tails and light-brown fur; without the tail they measure 23 inches, but are only from 15 to 18 inches high. Likewise among the ruins are to be found numerous small grey wild cats, whose fury, directly they are wounded, is well known to the inhabitants, one raises unwillingly, although it is not unseldom exhibited. Gazelles are constantly to be seen in herds of 4 to 20 quietly resting. A kind of stag with large horns is supposed to make its appearance sometimes, but I never caught sight of one. Wild boars live in large numbers in the neighbourhood and thickets of el-Hammeh and el-Mukhaibeh, on the Yarmûk, also in the deeply indented woods.

The Jaulân is poorly furnished with bright-coloured birds. Besides the thistle finch and common finch, there is the field lark and sparrow, which here, as everywhere else, carries on its thieving existence. In spring large swarms of wild doves (Rukti) and starlings (Zarzur) injure the seeds. Large coveys of partridges (Hâjal) are to be met with in sheltered

bushy places. As to dangerous reptiles in stony Jaulân, a light-brown viper, about 3 feet in length, is found; it has a thick head, thick body, and short tail, and herds of these do great damage. In the little water-basin found in the wâdies in summer, and also in the small running brooks, there are innumerable poisonous water-snakes of a dark colour (ash grey), and measuring 3 feet to 4½ feet in length. The entwined and partly water-growing roots of the oleander bushes make a favourite hiding-place for them, from which they dart out upon their prey. The inhabitants are frightened of these water-snakes, and avoid bathing in such water channels. I have convinced myself of the harmlessness of a black-spotted, dark, large snake (probably belonging to the family Colubridar, named Zamens—see 'Botiger Rephtien und Amphibien von Syrien,' 1880), which is frequently met with in Western Palestine. This, as, indeed, every other snake, is regarded by the natives as poisonous.

There are quantities of tarantulas and scorpions to be found on the east bank of the Lake of Tiberias; the pitching of a tent there, as I know from my own experience, may have grievous consequences.

To get a clear impression of the irrigation of the Jaulân one must always bear in mind that the highest point of the longitudinal profile is in the north, whilst the deepest of the same is in the south-

west, and the transverse profile of the north and central Jaulân falls into two sides, right and left, towards the Jordan and Rukkâd.

From the water-shed, which, as we have seen, reaches a height of about 3,000 feet between the two extended groups of volcanoes, spring many small watercourses.

Flowing thence at first only as perennial springs over the surface of the ground, they soon cut deeper and deeper clefts in the same; and about the district between el-'Aselîyeh, Kubbet ed-Dhahr, el-Kusbiyeh, Washarah, and el-Kubbeh, where the plateau makes an abrupt descent, they reach a depth of 492 feet and more below the neighbouring country—these water-channels, or wâdies, conveying only an insignificant amount of water in summer; but in winter they swell so suddenly as to hinder traffic and form giant mountain streams, with cataracts bringing down and depositing at their mouths a mass of boulders. The course of these wild streams divides in two directions south from Tell Abu el-Khanzîr and west from the volcanic group of Tell Abu en-Nedâ. The first, and certainly the most important group, embrace those which originate in greater or less proximity to the southerly foot of the Tell Abu el-Khanzîr and Tell Abu Yusef, make, after numerous windings, a south-westerly course and then unite to three powerful mountain streams, which, under the names of Wâdy es-Safâ, ed-Dalieh, and es-Senâm,

enter the plain el-Batihah. There, during summer, they lose their water either wholly or partly, so that the course of these wâdies to the Sea of Tiberias is only recognisable by the stratum of material which the water has brought along with it. During summer the Wâdy ed-Dalieh, on the border of Batihah, evaporates, and the Wâdy es-Senâm is completely dried up; the Wâdy es-Safâ alone in the hot weather has water. The course of this wâdy is not, counting windings, on the whole 16 miles in length; and there is a difference of 3,116 feet in height between the source and where it enters the Sea of Galilee.

The wild streams of the second group rise along the western slopes of Tell Abu el-Khanzîr, Abu en-Nedâ, and barren Tell el-Ahmar runs parallel towards west-south-west and west, and discharge themselves into the marshes and Lake of Huleh. Only a few small disappearing wâdies rise upon the slopes themselves, and make quick short courses to the Jordan. The streams also belonging to the second group can hardly be regarded as perennial.

They all dry up with the exception of Wâdy Dabura and Wâdy el-Hamd, where even in late summer a little water always sparkles down. During rainy season they increase less than the ones belonging to the first group, for their course is considerably shorter, amounting at best to no more than $7\frac{1}{2}$ miles. The difference in height between the source and the mouth amounts

at its highest to 2,952 feet (W. Dabura), and to 1,640 feet at its lowest, in an extent of $2\frac{1}{2}$ miles to $3\frac{1}{2}$ miles. The wâdy of both groups do not sink gradually to this remarkable depth, but fall for the most part in terraces.

East of the volcanoes and the water-shed of northern Jaulân, that is towards the low lands of Rukkâd, there are no water channels worthy of mention; they are only perennial and sporadic springs, whose short course, even in the rainy season, has only a bed of a few metres deep, which is owing to the slight difference of height in their course. The water channels of central Jaulân rise on the southern edge of the watershed, at the place where it makes a steep incline between the southern outlets of the volcanic chain, and soon make for the west, towards the Lake of Tiberias. Before its mouth the Wâdy Joramâyeh enters Batihah and unites with the Wâdy es-Senâm. The water of these valleys flows at first slowly over the surface, which is already less stony, gradually grows into a swift torrent and tumbles from a great height over basaltic terraces. The most remarkable example of this kind is afforded by the Wâdy Bâzûk near a Tell of the same name, whose stream (according to a measure designed for the purpose), beginning with a depth of only 10 feet beneath the surface of the country, after a length of 656 feet falls down a height of 531 feet, in cataracts of 66 feet and 100 feet. The same thing occurs in

the Wâdy Joramâyeh. The Wâdy esh-Shukeiyif and the double-branched more distant Wâdy es-Semakh are less violent. The length of Wâdy Joramâyeh reaches, at the most, 13 miles; the difference of height between spring and lake being about 2,952 feet. These valleys of central Jaulân, in opposition to the narrow cleft like one of north Jaulân, which are only a few hundred feet in breadth, are two and more miles broad; they are quite charming towards the lake, are in part built over and inhabited by Bedawîn, and like Wâdy es-Semakh, for instance, covered with ruins. Some water flows along the bottom, which only in years of very abundant water reaches in summer the lake-basin. Every such stream in the Jaulân is extraordinarily rich in fish. Finally, the wâdy of southern Jaulân are more insignificant. The two most noteworthy are: the pleasant woody Wâdy Masâûd, moistened by a stream which discharges into the Yârmûk in the south Jaulân, and which is 5½ miles long, not counting windings, and which makes a fall of 1,508 feet, and Wâdy Fîk; this, which is very rocky in the upper part, runs northward past Kŭlât el-Husn to the lake, and is fed by a small stream.

The length of the wâdy scarcely amounts to 3½ miles, and its entire fall is about 1,800 feet. The other wâdy are small side valleys of the Yârmûk and Rukkâd.

Besides these small floods, which begin and end in

the Jaulân proper, we must mention those larger channels which are outside the Jaulân, and either stretch through it or in part form its boundaries. There are (1) Nahr es-Sa'âr, in the north of Sharah; (2) the Jordan, in part the western border of Jaulân; (3) the Nahr er-Rukkâd, between Jaulân and Jedûr; (4) Nahr el-'Allân, the east boundary of entire Jaulân ; and finally (5) the two latter, which, joined, form the largest river, the Shariat el-Menâdîreh, Yarmûk, the southern boundary of Jaulân.

(1.) The Nahr es-Sa'âr, beginning on the southern slopes of Hermon as a clear, fresh stream, flows in a southerly direction towards Merj el Yafûreh, and propels some mills on the east side of this valley, then crosses the Merj in an even—often sluggish—course, and joins at Birket er-Râm with a small confluent, the Seil el Yafûreh, which turns a mill near a pond of the same name. At el-Mes'adi it falls over rugged steps into a deep ravine, which, from there onward, bears the name of Wâdy el-Hoshabah, and divides esh Shârah into two parts. Wedged in by high rock walls, it soon changes from its southerly direction to north-west-north and enters the plateau at Baniâs, uniting her with the Nahr Baniâs. The valley of Wâdy el-Hoshabah widens in its upper part, and then narrows lower down into terraces, leaving the rushing brook only a very limited space. At Birket er-Râm the Nahr es-Sa'âr is about 8 feet broad, but

scarcely a foot deep. In the vicinity of its source the water is clear, but in the Merj (plain) becomes a dirty-green colour, covered with swamp vegetation, which it loses first in its swifter course in Wâdy el-Hoshabah. The whole length reaches about 9 miles; the total fall between the Merj and Baniâs is 2,362 feet.

(2.) The Jordan, or esh-Sheriâh.

The largest river in Palestine, has been sufficiently treated in the 'Memoirs' of the Palestine Exploration Fund and in other places, and is only of importance to us so far as it refers to the portion in the district between the Lake of Huleh and the Sea of Tiberias. Its slow course down to the Lake of Huleh is surrounded by marshes and papyrus woods; when it emerges from this lake it has an uniform flow inasmuch as in a stretch of 10 miles it falls 689 feet. Thus, from + 7 feet at the Lake of Huleh to — 682 feet at the Lake of Tiberias.

The broad Huleh marshes narrow beneath the lake to a small valley, through which the stream glides down to the Batihah and into the Lake of Tiberias.

On account of the marsh fever, the Huleh marshes are in bad repute; their miasma may be observed on the high-lying Mejdel esh-Shems.

The Jordan, also, between the above-mentioned lakes, produces this same fever, in consequence of the heated air wedged inside the high ridges of the

valley. I know, from certainty, that a single night spent in late summer near Jisr Benât Yâkûb, is enough to impregnate the body with fever. The water of the river is muddy, in spite of its stony bed overlaid with rubble; oleanders, canes, willows, and other shrubs grow on its banks. At its discharge into Lake Tiberias it flows slowly, and is 147 feet broad, with a depth of 3 feet. However, this measure increases or lessens according to the time of the year.

(3.) The Nahr er-Rukkâd.*

This most important river of Jaulân has its source in the southern declivities of Hermon, in the western Wâdy el-'Ajam. It is from the spring' Ain el-Beidah (3,394 feet), close to the boundary between el-Kuneitrah and Wâdy el'-Ajam, that the channel of the Rukkâd, otherwise dry, gets fed. Towards the north this latter is only a little sunk below the surface of the ground; but the whole country inclines towards it from the east, and during the melting of the snow and heavy downpours of rain, is highly flooded. It is for this reason that at Sueiseh the channel is spanned by an arched bridge (Jisr es-Sueiseh), which is fairly preserved. The small springs, which scarcely moisten the land between 'Ain el-Beidah and Ghadîr el-Bustân, are not worthy of mention. On the other hand, large springs appear at Ghadîr ej-Jamus and Ghadîr el-Bustân, so that the

* *See* 'Across the Jordan,' p. 13, Schumacher.

Rukkâd, from thence onward to the lower bridge, Jisr er-Rukkâd, is never, even in summer, quite dried up. The bridge road stands 1,610 feet above the sea: that is, 1,784 feet lower than 'Ain el-Beidah. The channel is from 16 feet to 19 feet below the surrounding country, and is still some hundreds of feet wide.

Scarcely 656 feet beyond Jisr er-Rukkâd the natural features change; here the water suddenly dashes over perpendicular basaltic rocks 82 feet high, and lower down are many other cascades. The wide bed contracts to a narrow cleft, whose perpendicular walls fall to a great depth. This part of the Rukkâd, so an old Bedawîn told me, was called by the Bedawîn tribes (Jarab Sakhar) who formerly dwelt there, and who now camp near Nazareth, and in the plain of Jezreel—Hami Sakhar, that is, 'Protector of Sakhar'—indicating that in a time of pursuit no food could follow them here. This name is still known, as well as that of Rukkâd, and is once mentioned thus by Burckhardt ('Ritter Erdk.' xv., p. 356). After a course of about 5 miles from its first fall the Rukkâd receives from the east a fine stream—the Wâdy Seisûn, whose water likewise falls down from the plateau, and can be heard at a great distance. At the same time, between Jamleh and Kefr el-Ma, the ravine widens to a distance of $1\frac{1}{4}$ miles, and is divided

by the Râs el-Hâl (or Tell el-Ehdeb), one of the gliding mountains loosed from the overhanging bank itself, into two parts. The Rukkâd, therefore, between this and Kefr el-Ma, flows thither at a height of 538 feet above sea-level, and is joined further down by another little wâdy, whose source is between the Tell and Jamleh, and which descends from a greater height from the southern hanging coast bank. The long extended gliding hill of Râs el-Hâl, which has an almost perpendicular incline of fully 524 feet to the Rukkâd ; the narrow northern ravine, with its gloomy basaltic walls above, and white chalk walls in the river bed, and the foaming waterfall of Wâdy Seisûm, gives the country an extraordinary picturesque aspect. The valley widens still more, and the Rukkâd flows tolerably quick over large basaltic blocks to its union with the Yarmûk at Tell el-Ferdâweh (or Tell el-Hâweh), which lies 154 feet beneath the level of the Mediterranean Sea. In summer time, however, its water evaporates before it reaches this river. Its entire length, from 'Ain el-Beidah to Yarmûk, is 38 miles, the difference in altitude of the two points being 3,549 feet. In the bed of the river are a large number of boulders, which roll along the crumbling soft limestone, of which the bed of the river and a part of the slope consists, with a swiftly-destroying effect. In spring time, and when the snow of the high mountains of the Jaulân and Hermon melts, these boulders are set in motion

by huge masses of water and obstruct all traffic. A proof of the great size of these floods is shown by the heap deposited on the side of the river basin beneath the Râs el-Hâl, the breadth of which is 300 to 400 feet. The Rukkâd swarms with savoury fish, especially carp, which are easily caught with nets. The banks of the lower half are luxuriant with oleanders, wild figs, plane trees, canes, also wild grapes and willows. With the exception of the above mentioned Wâdy Seisûn, the Rukkâd has no confluent of any importance. The Wâdy Ser'âi, Sîhân, and Hetâl, as well as a large number of springs upon the declivities of Zâwîyeh el-Ghurbîyeh certainly hold water constantly, but these soon evaporate in the deeply-notched valley. The Seil el-Ghôr, which flows into the Rukkâd at Kefr el-Ma, conveys plenty of water to this latter during the rainy season.

(4.) The Nahr el-'Allân.*—This frontier river between the Jaulân and the Haurân, which with the Rukkâd and Yarmûk surrounds ez Zawîyeh esh-Shurkîyeh of the Jaulân, proceeds from the high plateau of Jedur, and makes a less divergent southerly course than the Rukkâd, beneath the village of el-Ekseir, and about 56 feet above (east) the Rukkâd flows into the Yarmûk. Although its channel is shorter than that of the Rukkâd, it bears a great resemblance to this latter.

* *See* 'Across the Jordan,' p. 16, Schumacher.

Instead of a moderate fall at the beginning, numerous cataracts between high basaltic walls suddenly appear enclosing the narrow ravine. They only convey a little water in summer time, and first begin to get fuller in the spring.

The most important river of the east Jordan land, and at the same time the most powerful tributary of the Jordan, is the (5) Yarmûk or Sherî'at el-Menâdireh. It was called Hieromax by the Greeks and Romans, whilst in more recent time, in consequence of the Bedawîn tribe 'Arab el-Menâdireh camping on its valleys, and cultivating its slopes, it received the name of Sherî'at (watering place for animals) el-Menâdireh. It, too, rises as an abundant stream in north Jedur at the northern edge of Haurân, pursues a long southerly course to Tell el-Asháry in Haurân, and then strikes a decided westerly direction till it joins the Nahr el-'Allân, not far from the village of Heit in Haurân. Its name up to here is called Wâdy el-Ehreir, also its old designation of Irak or ('Arak) is still known. United with the 'Allân it flows for some miles south-west, and then unites with Wâdy Zeizûm and Wâdy esh-Shelaleh, both plenteous rivers descending from Haurân. From here onwards it bears the name Sheri'at el-Menâdireh, and at Tell el-Ferdâweh, at the side of Wâdy Keleit, absorbs the Rukkâd. It then flows swiftly with a rapid current in a south-westerly direction till it reaches the Ghôr,

past el-Mukhaibeh and el-Hammeh. It approaches the Jordan in a more southerly direction, to which, near the old Mejâmiâ bridge, at least it conveys as much water as the former itself contains.

As to other tributaries of the Yarmûk, entirely disregarding a number of smaller springs, I will mention further the Wâdies el-Ku'elby and Samar, or 'Ain el-Ghazâleh of 'Ajlun, the Wâdy ez-Zeyyatîn of western Haurân, and the earlier mentioned Wâdy Masâûd of south-western Jaulân, which, however, dries up in summer. A tributary of the same kind, and with a not less quantity of water, is formed by the hot springs which are known by the collective name of el-Hammeh.

The bed of the Sheri'at el Menâdireh is formed in the same manner as that of the great northern tributaries.

Not far from Tell el-Ash'ary the water falls down from the high plateau, over rocky slopes, and flows swiftly between narrow gorges to the 'Allân. Here the valley widens, and is pleasing and fruitful. From Jaulân the northern declivities make a precipitous incline, in several terraces, which are always bordered by lava masses, whilst the river course is embanked beneath a high perpendicular wall of basaltic rocks. The southern slopes of 'Ajlun, in consequence of the chalk formation prevalent there, are less steep. In the Ghôr high earth walls (Arâk Abu Jedeiyeh) bound the course of the river.

The water of the Yarmûk is only a trifle clearer than that of the Jordan, but fresher, and plentifully stocked with carp: thickets of canes, palms, and water plants are found in great variety, and are a favourite resting-place for large numbers of deer and wild fowl, &c.

Throughout its whole course the swift river propels grinding-mills of the most primitive construction, to which the inhabitants of the high plateau bring down corn by break-neck paths. In June, 1885, the Yarmûk, at its union with the Rukkâd, was 50 feet broad, 5 feet deep, with a speed of 4 feet a second. A few hundred feet further below, the river flows swiftly, and at an insignificant depth widens to 100 to 150 feet. In March, 1883, I noticed the enormous mass of water which rolled along in the bed, the breadth of the river near the ford, ½ mile east of el-Hammeh, amounted to nearly 260 feet, and in spite of its great rapidity the water reached to the saddle of my horse.

In the late summer of 1884, the water-mark of the river was higher than in June, 1885, a remarkable phenomenon, which admits, however, of an easy explanation in the difference in the quantity of rain during the two years. The rapid river can only be crossed at those places where fords are indicated; but even here the saddle-horse constantly stumbles over the bed of smooth polished stones, and has to struggle against the tide with all the force of its

strength. Asses for the most part take unwilling baths, which are in the highest degree serious for their riders. If one wishes to travel along the stream from el-Hammeh, it is impossible to avoid frequently crossing the Yarmûk. The route, therefore, is very difficult, and not to be recommended; beasts of burden cannot in any case manage it.

Besides these streams and wâdies, an inland lake is to be found in Jaulân, named Birket Râm, of which I shall speak in more detail further on. The climate of Jaulân is excellent. Properly speaking, there is no standing water in the high plateau, because the formation of the surface favours an unobstructed flowing off of the water. During the greater portion of the day, fresh west winds blow over the plateau and moderate the heat. The nights are cold, and in the north, especially, a very heavy dew falls, which keeps the first part of the day pleasantly cool. As soon as the sun disappears, the air quickly cools. The influence of the Ghôr is only perceptible on the slopes, for the plateau is elevated at least 1,640 feet above it. It is only the shut-in and perpetually marshy Batîhah and Jordan, near the Lake of Huleh, which engender malignant fevers.

In August and September, 1884, the thermometer on the high plateau of southern Jaulân, at 5.30 a.m., stood on an average at 59° Fah., at its lowest at 55°, but rose during the day to an average of 77°, and at

its highest reached 88° (Jibîn, 31 May, 1.30 p.m.). On May 26 and 27 a light rain fell. In northern Jaulân, in September, 1884, the thermometer upon the plain stood in the morning, 5.30 a.m., at an average of 56° Fah. at its lowest (ed-Delweh, September 17), and rose to 74° in the course of the day; it was quite an exception that on September 14, 12.30 mid-day, with a strong east wind in the village of el-Kuneitrah, 90° was marked.

With a strong east wind I found southern and central Jaulân bitterly cold, in December, 1884; whereas in January, 1883, from the 1st to the 4th, it was mild and agreeably fresh. In June, 1885, the average temperature of the southern Jaulân was 66°, at 5.30 a.m., and rose at mid-day to an average of 84°, whilst at north Jaulân, at the same hour in the morning, it was at 66°, and 77° during the day. These figures ought to strengthen the rule that it is hotter in the Jaulân in June and July than in August and September, a phenomenon which is the effect of the proximity of high mountains. Dew also falls as abundantly in late summer as in June and July. On the other hand, in Haifa, as well as in Western Palestine altogether, August is the hottest month. In the Ghôr (es-Samra), on May 21st, 1885, from 9 o'clock in the morning to 2.30 mid-day, we registered 98°·6 Fah. in the shade.

Snow and ice are well-known in the Jaulân.

Except in very mild years, snow falls not only in the rugged northern part, but also in the south, in the countries of Fîk, Dabbuseh, Kefr Hârib, &c.; it remains, however, here for a few hours only, seldom lying a whole day. In north Jaulân, on the contrary, it is in the highest degree troublesome to the inhabitants; for example, for weeks el-Kuneitrah and Jort el-Hâwa are covered several feet, and compel the Bedawîn tribes to go further back into the more sheltered wâdies and ruins. In general, the Fellahîn consider the limit, down to which the snow falls regularly and remains lying, a line which runs from el-Kuneitrah to Joramîyeh towards the southern bridge over the Rukkâd, and after the bridge, over the 'Allan (1,640 feet high); they call the district north of this line ej-Jebel, "the mountains," and wrap themselves closer in their thick fur coats at the mention of the intense cold prevailing there at times.

D.—THE INHABITANTS OF THE JAULÂN.

The people of Jaulân consist of colonised peasants, Fellahîn, and nomadic Bedawîn (el-'Arab).

The Bedawîn inhabit exclusively the part of southern Jaulân devoted to corn cultivation, also the two Zawiyehs, and have established themselves in the ruins of old places. They have laid the old basalt building stones upon the top of each other,

without any mortar, and have thus erected their huts; just as in the olden time the Romans and Arabians employed the smooth, easily split basalt. The roof is supported by rough oak-beams from the prevailing wood of the country. Oleander underwood is laid diagonally and it is then spread over with damp earth and a mixture of clay and fine straw. The walls are, according to the circumstances of the possessor, more or less adorned. The roof of their huts is annually repaired in autumn. The family inhabit the same hut till the roof commences to fall in under the weight of the yearly increasing layer of clay. Then, with the co-operation of the relatives, another hut on another part of the ruins is built. This is the explanation of the many modern ruins found amongst the unrecognisable old ones in the same villages. An exception to this description of buildings are the houses of the sheikhs which serve at the same time as inns, and are therefore better built, and surrounded by a court. Besides the strangers room, or el-Medâfeh, also because it is situated at the top, called el-Ullîyeh, they contain two or three sitting-rooms and a stable. For the summer months the Fellahîn build on the roof of the houses a square or round foliage hut, er-Risheh, made out of branches or reeds woven together, which are used as sleeping-rooms. Such a hut is very acceptable to the traveller, who first learns its value in winter, when he is obliged

to pass a night in the dwelling-room itself, which is full of crawling, flying, boring, gnawing vermin.

The fellah of Jaulân is, so far as his field is concerned, industrious, but because he is not used to any hard work he soon fails under too continuous labour, as guide employment for instance. Although inquisitive, like all Orientals, he is nevertheless a well disposed, hospitable man, who, with good arrangement, and discipline, can be made serviceable.

The immoderate inquisitiveness, which with him soon degenerates into obtrusiveness, can be best met by earnest determined dignified behaviour and a few severe but not offensive words thrown at him. Familiarity, if even well meaning, leads to a disastrous result; the fellah becomes then rude, impudent, and childishly troublesome. The Jaulâner is not badly disposed towards strangers; he at first exhibits distrust when he is questioned as to the number of souls in the village, the amount of cultivated land, and such things, and increases thus to hostility when instruments and slates are employed, because he fears a new tax. If a man, therefore, wishes to travel comfortably who is not provided with government authorizations, he should avoid making many notes in the presence of the inhabitants. The Jaulâner is tall and well grown, and much browner than the Arabs of Western Palestine; he has long raven black hair, part of it in a plait and part hanging loose; and he

is clothed in a linen shirt only reaching from throat to knee, to which in winter the well known wool hair cloak, or 'Aba, is added.

The fellah wears a Kufîyeh for head covering, a piece of linen wound round the head in the Bedawîn fashion, which is held together by a string ('Agâl) made of goats' hair.

The richness of clothing increases with position and means. If he wears over his linen undergarment a blue cloth coat and a coloured silken cloth for the head, he belongs to the notables of the village or is the village Sheikh himself.

Manâk lâbis jush, 'thou wearest cloth,' is an answer as significant as it is customary when anyone denies that he is one of the Awâdim, the more highly placed (properly noblemen) of the village; because he is burdened with most of the strangers and soldiers. The Fellahîn's mode of life is extremely simple. The necessary corn for bread he cultivates himself, as well as vegetables (cucumbers and tomatoes), and some water melons. He places much importance on cattle rearing, by means of which he principally lives; inasmuch as they yield him milk which he uses in both a sweet and sour form; and also makes into butter and cheese. Rice and meat are dainties; many have scarcely tasted them, and obtain them only at festival occasions, such as weddings or banquets. In none of the better sort of huts is coffee absent; it is roasted

in a great iron spoon and pounded in a wooden mortar with a wooden mallet (Figs. 1 and 2). If distinguished

Figs. 1 and 2.

guests arrive the Sheikh or proprietor of the Menzûl prepares a Dabîhah (slaughtered) sheep or kid with rice and vegetables, which is carried up in a strong copper dish with freshly baked flat loaves wrapped in a goat skin. The guests and most honoured persons then form a group round the meal, placing themselves meanwhile on their knees with their body bent forward. They then push the hand into the rice dish, roll some grains up together into a ball and convey this with enviable dexterity to the mouth. During the chewing of the food, the dipping hand is held all the time over the dish, '*Hitta la yeruh esh-Shasâra*,' 'so that none may fall to the ground.' Perfect stillness reigns during this proceeding, broken

only now and then by the shout of the host, or the steps of the attendants, who pour hot melted butter on the rice heaps, or the el-Humdu el-Allah rabbet el-'Âlamîn, 'Praise be to God, the Lord of created things,' from an appeased person, who rises then to make room for another. The vegetables lie all ready prepared in dishes round the rice bowls and are eaten by means of the loaves; whilst the meat forms a rim on the outer edge of the rice heap. Each takes as much meat as appears proper to him; bites some off and lays the rest back in its place again. To a specially honoured person it may happen that a neighbour who has found a piece particularly soft and succulent, lays it silently on the place before him, which must be at once consumed without hesitation and with a grateful countenance. After the male population of the village is satisfied and the hands washed and the remains cleared off, a little coffee (without sugar) which has been roasted and crushed in the presence of the guests, is handed round in little doses, two and even three times, as much as the guest is to be honoured.

Cigarettes and Nafas (water pipes) form the final enjoyment, to which one yields in pleasant repose reclining on the carpets.

The women occupy a subordinate position. They have to attend to the cooking, the making of butter, the reed plaiting, and such like things.

Polygamy prevails principally in the best (Sheikh) circles; but the number of wives (four) is, according to instructions, not exceeded. The oldest woman is most anxious to rule, and the youngest to be spoilt by the master of the house. So that neither should get the upper hand, the administration of the domestic arrangements, especially the care of the master of the house by the women, changes from day to day. During her *Dora* (for this arrangement is thus called) each woman is eager to prepare the most dainty portions for the master of the house and win his favour by every possible artifice. So long as the *Dora* of a wife lasts—always one day and one night—the other wives hold themselves aloof from her. Matrimonial morality is severe; adultery occurs very seldom and brings upon the guilty man the punishment of death.

It is, alas, through this that the avenging of blood, that unhappy legacy from the days of lawlessness, always receives renewed sustenance from the Bedawîn. Marriages are conducted with similar ceremonies and conditions to those of the Fellahîn of Western Palestine. The woman is purchased. The stipulated sum from the bridegroom to the father is discharged by ready cash for the smaller portion of it, and by highly valued cattle for the remaining and larger part. It is considered an honour to increase the sum as much as

possible, so that by a silent agreement the real price of the bride is less than the nominal one.

The fellah of the Jaulân and the Haurân is not drawn for military service, but he is compelled to contribute an equivalent sum in money. The Government, by a vigorous mode of action, has not only succeeded in keeping quiet the combative tribes, but has completely subdued them, and made its authority still more regarded than is the case in Western Palestine. The threat of the prison in el-Kuneitrah or Sheikh Sa'âd never fails to have its effect. At the present time, at any rate, there is no longer any question of a peasant or Bedawîn rebellion against the Government. Civil enterprise on the part of foreign Europeans is, therefore, averted as much as possible in the beginning, but scarcely indeed in a hostile manner. The Fellahîn, on the contrary, desire foreign capital, and would willingly carry on the agriculture in common with Europeans.

That the inhabitant of the Jaulân and the Haurân is in a very elementary condition as regards education is scarcely to be wondered at. There are no schools at hand, and they are therefore unknown by him. As a purely natural man he is simple and childish, but by no means insensible to novelty. Many times they offered me a cow or a horse for my theodolite in the belief that the distance to favourite spots was

marked upon it. A shepherd who was enchanted with my telescope immediately offered me his best coat in exchange, declaring as he used it and stretched out his hand to the objects appearing therein, that he would sit on a cliff all day long and observe the landscape: food thereby he would not require. For the rest, the object of the fellah's desires is the produce of the markets of 'Akka and Haifa, the fruit transport of which he has occasionally seen. As soon as he has a little cash, he quickly spends it on the things to be got there. His religion is Islam, but he is not a fanatic.

Besides the Fellahîn we find in the Ghôr and Yarmûk valleys four small Bedawîn tribes—the Arab Segûr el-Ghôr, el-Mukhaibeh, el-Menâdireh, and el-Kefarât. The last are partly inhabitants of 'Ajlûn, and only camp by the Yarmûk during the winter; they live in poor tents, and lead a tolerably harmless existence. Cattle breeding and a little agriculture afford them the necessary means of subsistence.

In opposition to the settled Fellahîn of southern Jaulân we must observe inside the boundary of the Jaulân the nomadic Bedawîn el-Arab, whose pasture grounds lie in north-west and central Jaulân. At the present day we find there thirteen different names of clans or tribes, some of which have their pasture lands definitely allotted, and others by reason of their relationship possess their land in common. Besides

these nomads, who ought properly to be reckoned with the settled inhabitants of Jaulân, there are a multitude of other Bedawîn, the tribes of which are related, who come to this rich country during the spring and leave it in the beginning of summer. These are reckoned in the second list because the Government has imposed certain taxes upon them.

From primitive times the Bedawîn or real Arabians of the land of east Jordan have wandered over this tract of country. The pressure of civilization or war has often driven them away; but they have always managed to regain their old places, and till the most recent times have remained the terror of travellers, for the Government itself was in no position to afford any secure protection. Burckhardt and Seetzen, at the beginning of this century, and other later investigators, suffered greatly from the thievishness and annoyance of the Bedawîn; but, thanks to the vigorous action of the Turkish authorities during the last thirty years, this nuisance has been put a stop to successfully. The fighting tribes were threatened with extermination, which was, in fact, in part actually effected; a better administration was given to the Jaulân and the Haurân, and grants of Government with officials and soldiers were founded. Consequently, the traveller of to-day, provided with letters of recommendation from the Government, can travel

through the whole countries of wide Jaulân and Haurân unmolested

The large tribes of el-'Anazeh, Ruwalah, have retired into southern Haurân and the Belka. The heads of the tribes receive annually a considerable sum from the Government, and bind themselves thereby to the preservation of peace. If, however, a blood feud breaks out, the contending tribes fight beyond the boundary of Haurân and 'Ajlûn, in the Hamâd. If, nevertheless, one party retire to this district the struggle can only be continued by permission of the Government, and this is never granted—such a retreat signifies defeat.

It was in this manner that the bloody struggle between the 'Anazeh and Beni Sahkr, in 1885, was carried on and decided in favour of the latter. In 'Ain Dakar, in the north of ez Zawîyeh es-Shurkîyeh, of the Jaulân, the 'Anazeh have regularly settled down, and themselves work the long despised dishonoured plough-share, instead of investing the surrounding district with lances and levying a yearly tribute, the Kuweh, as formerly.

In north-east Jaulân, in el-Kuneitrah, the Circassians drive away the encamping Bedawîn, so that these latter are limited to the proportionately small district in north-west Jaulân, of Skêk down to the Batîhah, and from the Jordan to the western group of volcanoes.

Here they camp in tolerable peace near each other: *dum* 'blood,' so far as I could learn, is only to be avenged between the 'Arab et-Tellawîyeh of the country near the Batîhah, and their northern neighbour the 'Arab el-Wesîyeh.

This state of things adds considerably to the difficulties of the investigator of these countries, for no guide belonging to one of the tribes can be brought to the frontier places of one of the others.

According to the information imparted to me by the Wesîyeh Bedawîn, on whom the expiation devolves, this blood-expiation is a tolerably cold-blooded affair. It is the duty of those belonging to each tribe to watch the steps of the offender: years pass by without any relaxation of watchfulness on either side. At last one of the Tellawîyeh cross the district of the Wesîyeh: his footstep betrays him even in the dark night, and it is then possible, to the devilish joy of the avenger, to shoot him, or stab him, or kill him with a club.

This is such an ingrained vice among the Bedawîn tribes that even the Government itself is powerless to oppose it; indeed, these savage practices will only be restrained when a condition of common social interests and efforts is brought about, and above all by the growth of a sense of national unity.

The Bedawîn, as from time immemorial, graze their cattle, churn semen from the milk, which they

sell for a good price to the dealer, or exchange for linen, spice, and coffee, carry on besides some cattle dealing and horse-breeding, and cultivate as much ground as is absolutely necessary for existence.

For the rest they live carelessly, practise the "dolce far niente" in the most extended sense, and are only roused by a traveller claiming hospitality, or by hungry gen-d'armes, upon whom it is laid either to collect the taxes or summon the Sheikh of the tribe before the Kada in el-Kuneitrah. Instead of military service an equivalent yearly tax is imposed upon them; on an average the total taxation on a tent of five persons would be about 120 Government piastres (1 gold Napoleon = 90 piastres). This is doubled and trebled according to the opulence of the possessor and the size of the tent, but it is seldom less.

From the 320 tents of the wealthy 'Arab et-Fadel tribe alone the Government draws on an average 38,400 piastres yearly.

The tent of the Bedawy does not only serve as a dwelling for the family, but also as an inn. The spontaneous hospitality which they have inherited as an obligation from their ancestors is now imposed upon them as a law, in which, nevertheless, they gladly acquiesce. They do not make themselves, the cloth for their tents formed of plaited goat-hair, but for the most part buy it from certain tribes and gipsies (Nauwâr), who drive a regular trade in this. The

necessary outlay for this latter is a great grievance to the Bedawîn. The ordinary man possesses a black tent cloth spread across poles. The wealthy have threads of white hair interwoven, fasten the tent by long cords across the poles, and divide it inside into a roomy reception-room, with carpets and mats, a strangers' room, and sleeping and sitting-rooms for the family. As, however, the tent is not able to withstand the effect of the weather, especially the snow and cold, the inhabitants of these tent villages have erected out of the ruined old places which cover north and west Jaulân, and upon the sites of them, wretched low stone huts with wooden roofs. Here they store the in-gathered pasturage and barley, as well as the straw during the rainy season, and take refuge therein during the fierce winter weather. These winter villages consist of from 6 to 30 huts, which in summer are completely deserted; they are closed up by a wooden door made out of a strong oak, and serve only as haunts for the wild cats and foxes.

The single Bedawîn races are detailed below:—

Besides these descendants of once powerful Bedawîn tribes we find (3) in central Jaulân, a large Turkoman tribe, the Arab Turkoman Teljeh, who divide the pasture ground of the country with the Bedawîn.

A branch tribe, Arab Turkoman Suwâdîyeh (with only 18 tents), leave Jaulân in summer and depart to the country of Aleppo. In customs and conduct they

differ little from the other Bedawîn, are like all the other Mussulmen, and, besides Arabic (among themselves), speak a language allied to the Turkish. They are rather more enlightened, carry on a carpet industry, are of taller, finer stature, and enjoy a more certain opulence, which, however, does not hinder them appearing as habitual and dexterous beggars. Although they are on a tolerably friendly footing with their neighbours, they preserve the purity of their race very strictly. Besides which, they have regularly established themselves in the winter villages of a few localities where they live entirely to themselves. Their places, however, are as poor and dirty as the other Fellahîn villages. Their horses are a more valuable breed, and their cattle are more prized than those of the other Bedawîn. As to their past, from their own lips I could only learn that they had migrated hither more than a hundred years ago, from the neighbourhood of Russia, probably from the Caspian Sea. I am unable to establish the circumstances and motives which led to this.

As in the Haurân so in the Jaulân, the planting of any kind of flag on the summit of a mountain lying in the pasture-ground of the tribe concerned, is regarded by the tribe as a call to arms. I myself had many opportunities of observing this, because I often had to put up a signal flag on the prominent heights for the purpose of trigonometrical measurements.

When I did this, for example, on the Tell esh-Shebân, a portion of the largest tribe of that country, the 'Arab el-Fadel, collected around me in a moment with every description of arms, and asked with an excited air what this signified. Only a detailed explanation and respect for my Government soldiers restrained them from violent action.

The Circassians (Fig. 3) are entirely different from the inhabitants we have considered till now. As a consequence of the Russo-Turkish War, they wandered out of Bulgaria, and in spring, 1878, in a starving and pitiful condition, reached 'Akka, where the Turkish Government assigned them land in Western Palestine, and in Jerash and the Jaulân. By indomitable industry and solid perseverance they soon attained a certain amount of prosperity, built villages, cultivated the fields, bred cattle, dried grass for the winter, and drove the Bedawîn out of their neighbourhood. So that to-day they possess the twelve large flourishing villages in the district of el-Kuneitrah, which are favourably distinguished from the other villages by their cleanliness, size, and solid masonry.

The seat of Government, el-Kuneitrah, is also inhabited, besides merchants and officials, by the Circassians.

In their relations with strangers they are reserved, cunning, and show little hospitality—nay, even are feared as robbers.

The Bedawîn well know their courage and spirit. The pasture grounds have often been the cause of

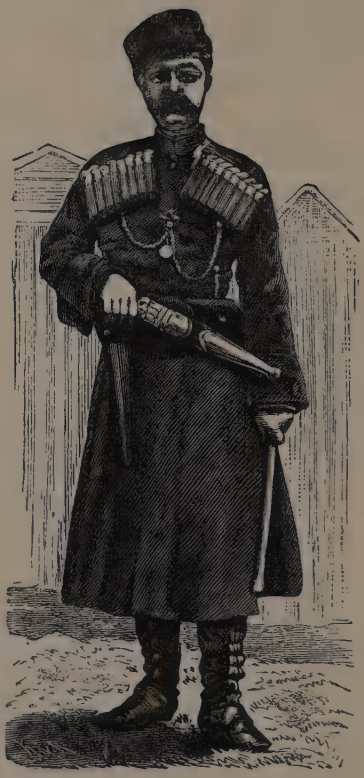


Fig. 3.

severe encounters, in which the Bedawîn, by reason of their bad weapons and deficiency of courage, were always defeated.

The consequence of which is that they have to

yield the field and pasture land to the immigrants, and retire with a vow of eternal enmity. A severe collision must take place between the tribes ere long, and it will begin—so the Bedawîn swear—directly they find a courageous leader amongst them.

As good Moslems, the Circassians are obedient to the Government, whom they must, in addition, recognise as their benefactor.

The inhabitants of the north-eastern part of the Jaulân, in the esh-Shârah, belong to the tribe of the Druses.

They are likewise more intelligent and industrious than the Bedawîn. They build fine large villages, and contentedly sustain themselves on the stony and little productive soil of the slopes of Hermon and Jaulân. They live in peace with their neighbours, but get along better with the Bedawîn than with the Circassians, who are likewise regarded as intruders by them. The peculiarity of their religion is well known.

Finally, in the two villages of Za'ôra and 'Ain Fît, in western esh-Shârah, close to the slopes of the Huleh marshes, we find six Ansarîyeh. Long ago they immigrated from the mountains lying east of Latakîyeh, in the north of Syria. This industrious little people have established themselves in three villages, the two already mentioned and el-Ghajir, in the plain to the west of Banias. They cultivate

excellent tobacco near these villages, rice at Huleh, and fruit trees and vines in the lowlands near 'Ain Fît. Their language is Turkish and Arabian ; their religion, although originally peculiar to themselves, now inclines to Islam. They have also put aside their plundering, cunning character, which I had opportunities of ascertaining, and are hospitable and open-hearted. One person in the village is commissioned to attend to travellers. This latter (en-Natûr) provides for the new-comer either at the expense of the village, or claims Bakshish for his trouble. They are of middle size and compactly built, but they have, for the most part, unhandsome features, and are rather dirty.

In the Batihah we find some poor tents, which belong to the Kubtiyân, or Ghawârneh, the gipsy tribe amongst the Bedawîn. Their badly-built little tents scarcely afford a man lying at full length protection from the rays of the glowing sun in the Batihâh. In idleness they roam with the buffaloes (Jamus), wallowing in the marshes of the plain, upon whose milk they live, and the proceeds of the cheese and butter they make. Every year their vegetables and water-melon culture grows visibly less. The too tropical sun has an ennervating effect on this little people, who are on the lowest level of education of all the tribes and inhabitants of Jaulân. Even the appearance of the Government gens-d'armes makes

no impression upon them. When we requested them to serve us as guides in the upland country, they regarded me with astonishment for this daring conception of their intellectual capability, as much as to say, 'Friend, you are uselessly troubling yourself so far as concerns us; our knowledge and capability consists in doing nothing!' And they are right.

The population of the Jaulân, including the 1,750 Zawîyeh esh-Shurkiyeh and the portion of the esh-Shârah not marked on the map, should not exceed 11,200 inhabitants of both sexes of ten years of age upwards, if we base our calculation on the populations of the respective places.

If one also adds to this the Bedawîn and gipsies camping within the border of Jaulân, amounting to 8,300, a total of 19,500 is reached, mostly settled inhabitants of Jaulân. The number of Bedawîn who only camp there during the winter amounts to 5,750, according to the list communicated.

E.—ROADS COMMUNICATING WITH THE JAULÂN.

The roads of northern Jaulân have become proverbial, being peculiarly stony and bad. In comparison with those of Haurân, even the most frequented roads may be called untraversable. The paths connecting the winter villages of the Bedawîn are often obliterated between lava blocks, so that

advance is most difficult. But everywhere traces of the old Roman roads with stone paving are to be found, which, as they have not been preserved, are, except in short stretches, entirely in ruins. The roads leading to the Circassian settlements, by reason of the better care bestowed on them, are a praiseworthy exception, so that the two-wheeled conveyances of the immigrants, although clumsily enough built, can easily overcome the stiffened floods of lava. In the north there is a more southerly road, which, besides connecting the Mejdel esh-Shems and the Banîas roads of esh-Shârah running from Wâdy el-Adjam, leads from Damascus across Sa'sa to Ôphâni (near 'Ain el-Bêda, on the Rukkâd). It then runs through Merj el-Buk'âti, across el-Mes'adi in Wâdy el-Khoshabah to the Baniâs, from whence roads branch off in all directions to Palestine and Lebanon. Between Ôphâni and the Merj there are distinct traces of a Roman road. A second one, likewise running from Sa'sa and Damascus, crosses the Rukkâd further south, leads to el-Kuneitrah, and proceeds past the ruined place, Skêk, to Za'ôra, 'Ain Fît, and finally to Baniâs. Here, too, are unmistakable traces of old roads. There is a third principal and caravan road which follows the above to el-Kuneitrah, then turns south-west, and goes in a tolerably straight direction to the southern slope of the Abu en-Nêda and northern slope of Tell Abu el-Khanzîr; and in

order to reach Jisr Benât el-Yâkûb passes by the ruined places, el-'Ulleîka and Nu'arân, over steep and very stony ground. It thus bisects upper Jaulân in the direction of 'Akka and Haifa. This once well-known and important commercial highway, known in antiquity and the middle ages as the 'via maris,' because it connected Damascus with the sea, presents a sad appearance to-day. It is certainly even now much frequented, but it is in a very bad state, and the path—without any detours over lava, cascades, and blocks of rocks—is a highly perilous one. There are two other highways, the Sultaneh of Tell el-Hâra and Damascus, which runs north from Kôdana across the Rukkâd, and the more southern and principal way which leads from Nawâ and Haurân over the Rukkâd to er-Râfîd ; these likewise cross the central part of Jaulân from east to west. The first takes us across el-Ghadirîyeh, the second across er-Ruzaniyeh and Nu'arân by the via maris to Jisr Benât el-Yâkûb. As it is not easy to cross the Rukkâd by the above roads in winter, the principal commercial roads of Damascus are brought over the stone and tolerably well-preserved arched bridge, Jisr Sueiseh, near the village of Sueiseh ; they then turn towards Tell el-Faras across the last-mentioned chief road of er-Rafîd, and continue in a somewhat southerly direction across the decaying Khan Jokhadar to Khîsfin. Here it is joined by the second largest

caravan road of Haurân, which runs from Nawa and Tsîl across the southern Jisr er-Rukkâd, and united they take a southerly direction through Zawîyeh el-Ghurbîyeh to el-'Al and Fik, from thence, passing Kefr Hârib to the east, into the southern point of Jaulân. Here these principal roads turn westward, run south of the decaying Khan 'Akabeh down the slopes, cuts through Ghôr south of Tellul es-S'âlîb, and form a communication with Tiberias across Semakh, with 'Akka and Haifa across el-'Abeidîyeh on the Jordan, through Sahel el-Ahma. This, in reality, is the principal road which cuts through central and southern Jaulân from north-east to south-west, having the names of Sultaneh (state road) el-'Akabeh (after the decaying Khan el-'Akabeh), and is thereby distinguished from the steep roads leading down from Derb el-'Arak, and those across Mukatt ej-Jamûsîyeh, near Kefr Hârib. In autumn this road is much used by the corn-laden caravans of Haurân; it is the best road of Jaulân, and in its latter half, especially through ez Zawîyeh, is broad, smooth, and tolerably stoneless. Many traces of the old pavement may be found there at this day.

The remaining ways are of slight importance, as is evident from the map.

The way round the north-east and south coast of the Lake of Tiberias is very beautiful; but in the Batîhah one must be careful of the fever lurking near the

shore, and in the hottest time of the day one should never ride along the road. The most beautiful and expansive outlook across the lake and environs may be gained by deviating from the road a little at Kefr Hârib, and posting oneself on one of the roofs of this village. The friendly people willingly point out the various spots to travellers. Their invitation to quarter there for the night should be accepted, for then one can be charmed by a last glance at the departing sun behind the Galilean mountains, and the exquisite changing play of colour in which the coast landscape of the lake is enveloped. Telegraph communication exists up to the present only between el-Kuneitrah, the seat of the Government, and Damascus, and also with Sheikh Sa'ad as the seat of the Governor of the Haurân. The telegraph service in el-Kuneitrah is international, but is worked only in the Arabic and Turkish languages as far as Damascus.

F.—NAMES AND PLACES IN THE JAULÂN, IN ALPHABETICAL ORDER, WITH THE NUMBER OF INHABITANTS OVER TEN YEARS OF AGE.

Abu Ahjar (D. 7).—A small shapeless ruin with scattered stones on a limestone hill in Wâdy Hetal, where the channels of the 'Ayûn Tawarik Hetal springs unite. Here a very luxuriant growth of shrubs

flourish, which, however, soon languishes in the bed of the wâdy.

Abu Kebîr (B. 8).—A volcanic hill, covered with great fragments of lava, close to the Yàrmûk, where it enters the Ghôr. Its little plateau exhibits regular rows of large unhewn basalt stones, measuring 10 feet square (Fig. 4). On the edge of the square there

Fig. 4.

Old Stone Wall enclosure in Abu Kebîr.

(*a*) Basalt Rock in the Yarmûk.
(*c*) Cut holes.
(*d*) Bedawîn graves.

are also pieces of wall in single layers devoid of mortar (*b*); these walls are 3 and 6 feet thick. The

single stones are from 3 feet to 4½ feet long, 3 feet high, and 3 feet thick.

A remarkably large stone lies in the middle and east and west end of each square. On the upper side of one of the eastern stones (*c*) a round conically sunk cavity is carved out, 10 inches deep, whose upper opening has a diameter of 9 inches, whilst the lower only 2 inches. The south-eastern corner stone of another square presents a similar cavity, which is likewise artificial.

As the whole neighbourhood constitutes a large Bedawîn graveyard, these squares probably indicate a consecrated place, and even if they do not belong to hoary antiquity, they are at any rate not modern.

The conical holes were probably intended as receptacles for libations. Here, from the east and the south, 'Arabs bury their dead, according to Bedawîn customs, and mark the grave with a large stone. In these squares, therefore, I recognised the remains of a very ancient Bedawîn cemetery. At the present day the 'Arab Segûr el-Ghôr, the Beni Sakhr of the upper Jordan Valley, prefer burying near the Abu Kebîr, and chisel the mark of their tribe, called wasm, in the western kerbstone of the tomb. It was on the tomb of the Sheikh et-Tûka (الطوحى) formerly head of the tribe of Tuwêk Bedawîn (a branch tribe of the Beni Sakhr), which also bore the Effendi surname of el-Faiz, that I collected the

chiselled tribe signs of the Beni Sakhr which are rendered here (Fig 5).

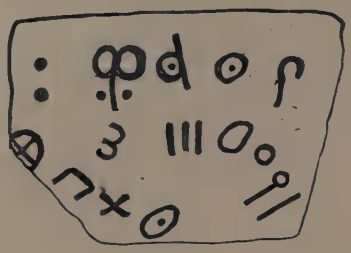


Fig. 5.

Tribe Marks of the Beni Sakhr.

This tomb lies between Abu Khebîr and Khurbet Jort ed-Dhahab on the north bank of the Yarmûk in the Ghôr. These signs consist of the Dabbuseh (club) ⚲ (also ⚲), el-Buweîter (diminutive of بثن button), ⊕ Shâhid 'witness,' ⁝|, Bâkûra, 'hooked staff' J, and Khâtimah 'ring,' or ez-Zenâd ⊙ 'bangle.' The last is the wasm of the Nu'êm Bedawîn. Whether the wasm Bâb, 'door,' ∩ which I likewise found there is a tribe sign of the Beni Sakhr I could not prove with any certainty. The Arab Segûr el-Ghôr, who came in the neighbourhood of Abu Kebîr, have chosen the Bakûra as wasm; consequently in the upper Ghôr this sign is found engraved on all the tombs, and in deserted encampments. This graveyard, extending from Abu Kebîr to Khurbet Jort ed-Dhahab, over a fruitful district covered with luxuriant Dôm growth, is

not only interesting on account of its great size but also on account of its ruined aqueducts and remains of gardens (ej-Jenîn), and for the collector of tribe signs it is also a most richly yielding spot. But the 97° to 99° Fah. of the Ghôr must be borne!

Abu Rumet (D. 3.)—A very small crater on the Roman road at the southern foot of Tell Abu en-Nedâ.

The many springs, pools, and ponds caused this spot, which formerly lay in the middle of large Bedawîn encampments, to be a much frequented rendezvous by the Bedawîn. Here war was declared or peace concluded: here the lances of combative warriors were fixed into the earth side by side as a sign of the peaceful suspension of hostilities until the feud was resumed at the decision of the heads of the tribes: here, too, was acknowledged the blood, shed as an expiation for blood, which had earlier flowed. Ah yâ Tcherkes! 'Woe to you Circassians,' called out my Bedawîn at this explanation, 'You rob us of all of our memorials, our consecrated places, and drive us back into the stony wilderness, but—Allahu Akbar!' (God is great.) Traces of foundation walls, and many old building stones, prove that Abu Rumêt is an old site.

Burckhardt ('Ritter, Erdkunst.' xv., Part. I., 168) mentions a tank, Abu Ermeil, which, according to his

description, agrees with the position of Abu Rumêt which he identifies with Birket er-Râm, which lies much more to the north. Von Schubert also mentions a place, Abu Ermeil, which he calls 'a meeting-place of the people from far parts,' which corresponds with my information about Abu Rumêt. Probably, however, both travellers have erred in the name of the place, for all the Bedawîn were unanimous in calling it Abu Rumêt, and writing it thus, ابو رميث

El-Ahmedîyeh (C. 4), often called also el-Hamedîyeh by the Turkomans. It is a somewhat poorly-built Turkoman village, consisting of twelve huts and seventy inhabitants, west of Selûkiyeh. It lies on a small declivity, at the western foot of which is a ruin, called Shuweikeh. This latter apparently marks the site of the old place, out of which ruins the Turkomans have built their village. Between the two places a fine spring flows, irrigating the vegetable gardens. In the village itself one observes on a stone inserted in a slab, whose inscription (Fig. 6)

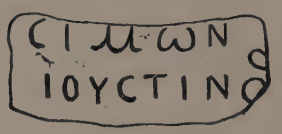


Fig. 6.

Inscription at el-Ahmedîyeh.

has already been mentioned, a Doric capital, and

close by the Jewish nine-branched candlestick, with the Jubilee year horn (Fig. 7).

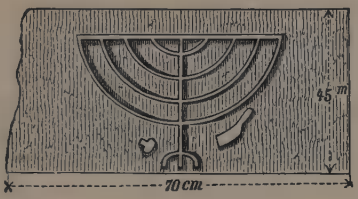


Fig. 7.

Ornament at el-Ahmedîyeh.

This Jewish ornamentation, so prominent at Dannikleh, frequently occurs in the surrounding country, and leads to the assumption that, in the beginning of our era, the Jewish people predominated in western and central Jaulân, as is also testified by Josephus.

A little beyond the village, in the south of the mountain terraces, there is a great depression of the ground, out of which the Turkomans have got up large hewn and ornamental building stones, because they have heard a Mâl, a "treasure," lies sunk here. The basalt stones brought to light present ornamentation in relief which are certainly of Roman origin. At least, the Roman eagle points to this: its image, though much mutilated now, has been executed with great care. My guide, a Turkoman Sheikh, stated that several more of these Sbâ, "wild animals," had

been raised, but, owing to their enormous weight, had fallen back again, and the treasure, which had already been struck, again covered up (Figs. 8 and 9).

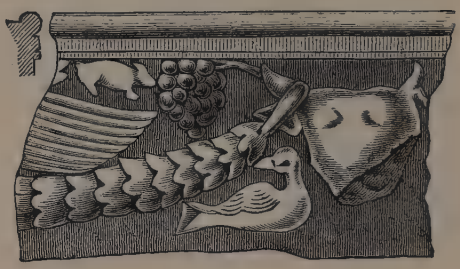


Fig. 8.

Ornament at el-Ahmedîyeh.

Fig. 9.

Ornament at el-Ahmedîyeh.

The building was, therefore, partly subterranean, with, perhaps, a gap leading up from the city to the high-lying fort. The present village apparently covers the old foundations, of which only traces are recognisable.

El-Ahsênîyeh (B. 6).—A ruin of considerable extent in the north of the Batîhah. The rude and hewn building stones are likewise laid with mortar, and, as in el-'Araj, the masonry and chiselling is evidently of Roman origin. The Bedawîn began excavating, and brought to light some interesting pieces of ornamentation, which forcibly remind one of the tombs of the Haurân. They laid bare the building whose ground-plan is given on Fig. 10. It suggests a

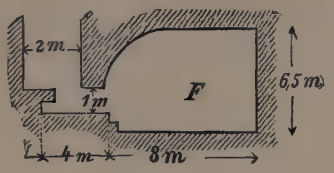


Fig. 10.

Building at el-Ahsênîyeh.

bath arrangement. The floor, F of the principal chamber, consists of two different courses: the upper, 1 to 2 inches thick, consists of a layer of mortar mixed with small stones, known and used even at the present day in Palestine under the name of Barbarîka; at a depth of 23 inches is a floor of basalt flags. Hence it follows from this, as well as from the enclosure walls, that this building has experienced two architectural periods—that of a Roman and Moslem.

Moreover, the subterranean remains of the neighbourhood, which are furnished with cell-work (Fig. 11)

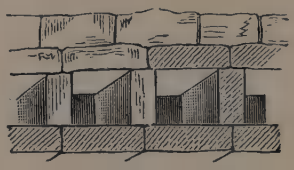
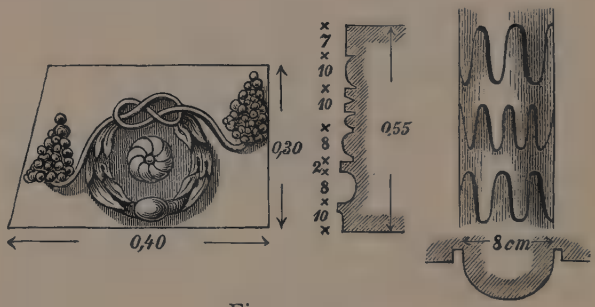


Fig. 11.

Cell work at el-Ahsênîyeh.

near which pieces of Roman ornamentation are to be found (Figs. 12 to 14), point to the conclusion that



Figs. 12—14.

Fragments of ornamentation found at el-Ahsênîyeh.

they were also built in the Haurân style, for all work of this kind, 19½ inches high by 19½ inches wide, with a like depth bridged over by a stone, and forming altogether a wall 6½ feet high, are to be found all over the Haurân.

It is to be hoped that the zeal of the 'Arab el-

Tellawîyeh will speedily bring to light some more discoveries.

A second *el-Ahsenîyeh* (B. 4), near el-Fâjer, a small ruin with scattered building stones, and destroyed Bedawîn huts.

'Ain el-'Asal (E. 4).—A fine spring below er-Ruhîneh.

'Ain el-Basâleh (E. 6).—Springs in very stony ground, with some flow to the Rukkâd. In the neighbourhood are dolmens.

'Ain el-Belât (C. 3.).—Several springs, having their source in isolated rock-holes near 'Ain el-Tarîj. The chief spring is clear and fresh, and has a small deep basin with a strong flow, which, however, soon becomes boggy. Here is the chief place of encampment of the 'Arab el-Fadel, particularly the 'Arabs el-Hawaj, whose pasture lands are always green. The country round is the stoniest and wildest part of the Jaulân, because it is here that one of the principal lava streams of Tell Abu en-Nedâ pours forth. Some remains of earlier building near the junction of the numerous springs bear the name of ej-Jueizeh (not the Circassian village ej-Jueizeh).

'Ain ed-Durdara (B. 4).—A bubbling perennial spring on the slopes of the Jaulân, near the Lake of Huleh. Ever-verdant grass and vegetation marks its winding course down the gentle descent to the lake.

'Ain Esfêra (B. 6).—A ruin, with scattered stones and folds for the cattle of the Bedawîn, on a slight elevation of the plateau north of el-'Al. The ruin was once important, but at the present time it is completely destroyed. The spring 'Ain Esfêra lies north of the ruins; its channel is boggy and deep, with some masonry. Let those to whom this district is unknown be warned of this swampy spring, in whose extraordinary depth one of my companions, along with his horse, was in real danger of his life. In the rainy season it flows into the Wâdy 'Ain Esfêra, and through this down into the wâdies ed-Difleh and Semakh.

'Ain Eshsheh (D. 4).—A fine large spring, the foot of the western slope of Shâfet 'Ain 'Eshsheh a small side spur of the Hâmi Kursu. The spring has a swift flow; the Seil 'Ain 'Eshsheh forms the beginning of Wâdy el-Wâshâsha.

'Ain el-Fâkhûreh (C. 6).—A winter village, with springs on the eastern slope of the Wâdy es-Semakh. Only two or three of the persons living in the eight huts, which each contain from six to ten, live there permanently.

'Ain el-Fejrah (B. 8).—A small spring overgrown with reeds on the slope south of Kefr Hârib.

'Ain Fît (C. 2).—A flourishing village of the Nusairieh, on the west of esh-Shârah. It comprises sixty huts, and, according to the cramped mode of living of

the people, has about 300 inhabitants. Well-cultivated gardens of fruit trees and vegetables, and a splendid spring, together with tobacco and rice fields in the Huleh marshes, give this village a steady prosperity. The inhahitants are an industrious friendly people. They remember very little of the dwellers of their home in the north of Syria, which they left many years ago.

Unfortunately, on account of the proximity of the Huleh bogs, the place is somewhat unhealthy.

'Ain el-Ghazâl (C. 6).—On the Wâdy esh-Shebib is a small winter village, consisting of eleven huts and some ruins. In summer these huts are inhabited by ten or twelve persons. Near a spring called 'Ain el-Ghazâl.

'Ain el-Ghazâleh (C. 8), in Wâdy 'Ain el-Ghazâleh. —This latter is called in its upper part Wâdy Samâr, and is a large deep valley of 'Ajlûn, which conveys water into the Yarmûk, opposite the Wâdy Mas'âud.

'Ain el-Hâjal (D. 3).—A very small winter village of the 'Arab el-Fadel, with some old building stones and a spring, north of Tell el-Baram.

'Ain el-Hajâra (E. 4).—A boggy spring, without any flow, near el-Breikâh. Around the spring are some stones and ruins.

'Ain el-Hamrâ (D. 2).—A little mud village in a rugged district at the eastern foot of the Tell esh-

Sheikhah. A scanty spring languishes down into the Wâdy 'Ain el-Hamrâ. The village has fallen into complete decay, and belongs at present to the Jebâta el-Khashab (as also the Merj el-Tabel). It is, however, under the administration of el-Kuneitrah.

'Ain Jibîn (D. 7).—Surrounded with good walls, in which the beginning of an arch may still be observed.

The bright clear water runs out of the small superstructure into a sarcophagus, and over it down into the valley. The sarcophagus is of basalt, 6½ feet long by 27½ inches high, and 23½ inches wide. On its longest sides there are two wreaths, like decorations tied with a ribbon, similar to those constantly appearing on sarcophagi. These, however, are defaced and weather-worn.

'Ain el-Katreineh (D. 2).—A boggy spring of bad water, with an insignificant flow, in Merj el-Katreineh, not far from the northern boundary of the Jaulân.

'Ain el-Krûh (B. 7).—A good, clear spring, with a fig tree and a small stream at Mukatt ej-Jâmûsîyeh (west of Kefr Hârib). The country round the spring is overgrown with Abhar (lilac).

'Ain el-Khurj (D. 5).—A tolerably copious spring, with clear water in two rock basins. It has no flow, and is a little north of el-Bîreh.

'Ain el-Malyûb (C. 4).—A spring with very little flow, in the valley south of el-Ghadirîyeh, on the Roman road. There are traces of Dolmens here.

'Ain el-Mâlek (C. 7).—A spring with scarcely any flow, beneath the Wely J'afer, near Fîk.

'Ain el-Marshûd (C. 6).—An impure spring on the eastern edge of the Wâdy es-Semakh, with scarcely any flow.

'Ain el-Melekeh (D. 7) the northern, 'Ain et-Bâbi the southern, and 'Ain Jibîn the central, are springs of Jibîn, on the slopes of the Wâdy Hêtal.

All these have plenty of water and some flow.

'Ain el-Mu'allakah (E. 5).—Several springs and puddles beneath the Kulei'âh hills; the water is muddy but drinkable. They lie in a depression surrounded by sheep folds.

'Ain Musmâr (B. 6).—A remarkably large spring, surrounded by fig trees, on the northern margin of the Batîhah. Its water flows partly past et-Tell into the Jordan, and partly southwards through the Batîhah into the swampy creek Zakîyeh. This second arm is fed in the Batîhah by 'Ain Akel and 'Ain Umm el-Lejjah. Both are fine springs surrounded by fig trees, and used for the irrigation of the Batîhah. The swampy brook is very inconvenient to both horse and rider, and necessitates a detour in the hot glowing plain.

'Ain en-Nakhleh (C. 7), 'Ain Bu'êsteh, and 'Ain el-Beidah, are three springs in Wâdy Mas'âud. Conveying some water even in autumn, they foster a luxuriant growth of brushwood in this

wâdy. At each spring traces of old buildings are found.

'Ain en-Niswân (B. 7), 'Spring of the women;' 'Ain el-Arâis, 'Spring of the brides;' 'Ain er-Rijâl, 'Spring of men;' and 'Ain el-Kuhleh, 'Spring of the Kuhleh horses,' are four moderately large springs, right under the rocky precipice of Kefr Hârib.

They supply this village with good drinking water. A little brook, the Seil 'Ain en-Niswân, trickles down into the valley.

'Ain Sa'âd (C. 8).—Small ruins, with scanty springs on the northern slopes of the Yarmûk below Dabbûseh.

'Ain es-Semakh (C. 3).—A large spring north of Tell esh-Shebân. It becomes boggy during its flow to the western declivity of Jaulân.

'Ain es-Sidr (C. 7).—A spring with a small stream on the southern slope of the Wâdy es-Semakh, near the ruins et-Tuènni. A side bush dips its roots in the spring, hence its name.

'Ain es-Sîmsîm (C. 4).—A spring on the Roman road, not far from Nu'arân, a Turkoman encampment.

'Ain el-Tarîj (C. 3).—A spring in the stony district of ej-Jueizeh. It flows from a crack in the rock, and has only a very sluggish stream; but it is copious, and at its source the water is clear and good.

'Ain Tabak Jerjeh (D. 7).—A large spring on the east slope of the Wâdy Hêtal, shaded by three splendid

trees. The name, Jerjeh ('George'), is very rare in this country, and would probably have its origin in earlier centuries, perhaps in the days of the Crusaders. The entire eastern slope of the Wâdy Hêtal is called Tabak Jerjeh ('Declivity of George'). The spring was enclosed, and traces of old masonry were also to be found in the neighbourhood.

'Ain et-Tineh (B. 3).—A plentiful spring above the Wâdy el-Hamd, that flows into the Lake of Huleh. It is shaded by a beautifully grown fig tree.

'Ain Umm 'Otman (B. 8).—A spring with a holy sepulchre, overshadowed by three magnificent trees, on the western slope of the Wâdy Mas'âud.

'Ain Umm Mukhshabi (D. 4).—A feeble spring near a ruin of the same name, north of er-Rumsâniyeh.

'Ain Wurdeh (D. 4).—Fine large springs, north of er-Rumsanîyeh. The springs bubble up out of the ground and flow in a fresh clear brook into the Wâdy er-Ruzanîyeh. They are some of the best and most copious springs of the Jaulân.

El-'Al (C. 7).—A large, well-built village, on the point of reviving. It is close to the fall of the wâdy of the same name, and comprises 65 dwellings, mostly built of stone, with pretty summer huts on the roofs made of willows. The 320 adult inhabitants cultivate the good, stoneless field, of the contiguous high plain, and are pretty well independent of the

usurers, who have already most of the villages of the high plain in their power. In the east of the village an abundant spring with an insignificant flow. It has a setting of flag stones. The dwellings of the Sheikh are spacious and carefully built, and in them strangers are hospitably entertained by the tribal

Fig. 15.
Basalt Statue at el'Al.

Sheikh, who comes from the most respected old family of the land.

The half-forgotten ancient name of the village seems to have been 'Ain el-Kahwa ; but I cannot go

bail for this information, as it appears only to have remained in the remembrance of a few old people of the village. The situation of the village is somewhat low ; the surrounding territory sinks towards the fall of the Wâdy el-'Al, which, falling in terraces, presents wild romantic scenery.

The whole neighbourhood of the village contains several antiquities of strikingly Roman characters. In the courtyard of the Sheikh there is a beautiful statue in basalt, $3\frac{1}{2}$ feet in height : it probably represents a Greek goddess, whose robe, girded round the

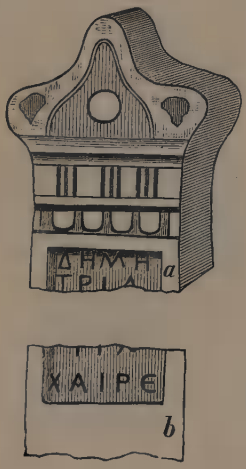


Fig. 16.

hips, clings to the body in full folds of drapery (Fig. 15). In the left hand she holds a shield ; the right is broken off. Unfortunately, the head is broken

off as well, and the feet are destroyed by the destructive Bedawîn, according to the asseverations of the Sheikh. In the same courtyard lies a small kind of sepulchral stone, 31½ inches high, with a Greek inscription and ornamentation of a rude Doric character. (Fig. 16*a*). Its execution is much more imperfect than that of the statue. The portion broken off, with the continuation of the inscription (*b*), I found set in in the lintel of the door of the Menzûl. The breadth of the two pieces amounts to 14 inches. Besides this there are several remains of basalt columns in the stable belonging to the Sheikh, certainly only the shafts, no capital, and here and there a fragment of Roman cornice (Fig. 17). Beyond—particularly in the east of the

Fig. 17.

village—the inhabitants have discovered a large number of basalt sarcophagi. Several of them are entirely destroyed : not one is entirely preserved, and only one distinguished by good work in high relief is found on its south side (Fig. 18). A small head looks out from a medallion, which is held by two females, whilst in the other hand they

hold up a palm branch as a symbol of peace. Although their heads are destroyed, the curly hair on them is still perceivable. The man's head has also the same kind of hair: his upper lip is covered

Fig. 18.
Side view of Sarcophagus at el'Al.

with a moustache. The execution of the work is artistic, but at the same time not noble. The sarcophagus is basaltic, and 6½ feet long, and 19½ inches broad. Avarice and curiosity will prompt the inhabitants of el-'Al to further investigations, which will result in bringing more discoveries to light.

El-'Amudîyeh (C. 5).—A ruin with a few winter huts on the wâdy of the same name, which joins the Wâdy el-Yêhûdîyeh. There is little to be seen now of pillars which have given the place its name.

The position is beautiful; the wâdy falls over high basalt terraces below the ruin. Unfortunately, it was not possible to examine the place more closely.

'Arab ed-Dîab (C. 6).—A Bedawîn tribe, possessing about 120 tents, and camping between Joramâyah and the Wâdy es-Semakh. Formerly prosperous and respected, they are to-day a beggared, degenerated people.

'Arab el-Ekseirîn (D. 6).—In the south of Tell el-Faras, down to the neighbourhood of Khisfîn. The encampment comprises about 80 tents.

'Arab el-Fadel (C. 3).—An aristocratic Bedawîn tribe, which considers upper northern Jaulân as its own. The head of the tribe is an Emir (Prince) who dwells quietly in a splendid tent furnished with costly carpets; and who receives guests with dignity and pride, begging of them anything that excites his pleasure. The tribe numbers about 320 tents, which are large and small, richly and meagrely furnished according to descent from the family of the Emirs, or cattle-rearers. The former pride themselves on their knowledge of writing, which, however, is of so deficient a nature, that they were only able to comprehend the orders of the Kaimakâms of el-Kuneitrah, when I threatened to set up my tent in the midst of the Sheikh encampment, in the meantime getting orders from the governor which were more within reach of their understanding. A guide was procured finally by grumbling and scoldings, who afterwards displayed so unsympathetic a manner that we were glad when we were able to dispense with him.

They are regarded by their neighbours as a haughty people, and as enemies by the adjoining Circassians. Between the two it has already come to fights, in one of which the father of the present young Emir, the Sheik Shehadi el-Fadel, fell. Since then they regard the Circassians as deadly foes, and the slightest occasion leads to bloody quarrels. Consequently both parties keep carefully apart. Besides extensive cattle rearing and insignificant agriculture, they are now trying vine cultivation, but the attempt made by the Kurm el-Emîr, in the western edge of the plateau not far from Skêk, was certainly anything but promising. The Fadel possess numerous winter villages. A branch of this tribe is the 'Arab el-Hawaj, who graze on the 'Ain el-Belât and at the foot of the Tell esh-Shebân, which is zealously watched and revered by the whole tribe on account of the Emirs buried there. The number of their tents amount to 60.

'Arabej-Je'âtîn (C. 5).—A tribe whose number nearly reaches that of the 'Arab el-Wesîyeh. They have about 100 tents between Selukîyeh and the Wâdy Joramâyah, and are peaceful frontier neighbours of the Wesîyeh. In former times they carried on a carpet industry, and produced masterpieces in this art by weaving together bright-coloured threads of goats' hair. This industry was exclusively in the hands of the women and girls. We procured a carpet of this kind upon which a girl of the tribe had been engaged

from her youth to her marriage in her 20th year. Certainly a model of perseverance and industry. Altogether, with this carpet, we carried away a pleasant remembrance of the Bedawîn couple; the old woman who had to decide about the purchase of the carpet, raised it up several times, announcing finally, "If you will add two Mejedies (9 francs) to the prime cost, so that I can purchase a respectable honourable tomb for my tribe-comrades, you can take it away." And so it happened.

'Arab el-Kefarât (C. 8), or el-Ekfarat.—The Bedawîn of Kefarât, the north-eastern district of 'Ajlûn. They are partly Fellahîn, who in spring only pasture their cattle and cultivate the slopes in the valley of the Yarmûk from el-Mukhaibeh to the Rukkâd; but who in summer and winter withdraw to the plateau of 'Ajlûn, only passing a few weeks in the valley at harvest time.

'Arab el-Menâdireh (D. 7).—The Bedawîn tribe from which the Yarmûk gets its name of Sheri'ât el-Menâdireh. They are a thrifty industrious little people, who have established themselves in the valley of the Yarmûk, upon whose slopes, from the Rukkâd upwards, they graze and plant. Like all the Bedawîn tribes of this valley they are under the jurisdiction of the 'Ajlûn, and in certain details also that of the Haurân (see Schumacher's 'Across the Jordan,' 4, 12, &c.).

'Arab el-Mukhaibeh (C. 8).—A small poor Bedawîn

tribe, with hardly 30 tents. Their cattle feed in the valley of the Yarmûk, from ed-Duêr upwards to the hot springs of el-Mukhaibeh, on the Yarmûk. Their sheikh, Kâid, considers himself the owner of the great palm-wood at el-Mukhaibeh, which in its way is a unique phenomena of the east Jordan valley. In the bathing season (April and May) the tribe furnish the hundreds of bathing visitors in el-Hammeh with sheep, goats, and vegetables. The tribe is under the jurisdiction of Irbid in 'Ajlûn.

'Arab en-Ne'arneh (B. 4) have 70 tents in the country of Nu'arân and el-'Ulleika. They cultivate corn, and, as second crop, some Italian corn (dura Safra), which they water and guard with Argus-eyes; for, during the hot season of the year, travellers as well as cattle are glad to consume the knots or stalks for refreshment.

'Arab en-Nu'êm (E. 5), or en-Nu'êm el-Yûsef. A large wealthy Bedawîn tribe, which is spread over east Jaulân and north Haurân to Nawa. The number of their tents in Jaulân amount to 280; their head-quarters in summer are at Tell el-Faras, whose country, rich in springs, is well suited for their great herds of cattle. According to the latest orders, the Government is driving them out of this country, because they wish to keep the luxuriant pasturage for their own flocks in Damascus. So the Nu'êm, with sad countenances, retire eastward, always further away

from the alluring Belâd er-Rabî, of which the Government officials have seized possession and only left a part to the Circassians. The Nu'êm are peacefully disposed, and friendly to strangers, and indulgent to the Wesîyeh Bedawîn, who serve them (*see* above); in them the Jaulân loses its best Bedawîn tribe. The tribal mark of the Nu'êm has the Khâtima ○ between two strokes ||, el-Matârik (Sing, Matrâk), consequently the following *wasm*, |○|; the two strokes signify lances driven into the ground, the sign of truce.

A small branch tribe of the 'Arab en-Nu'êm el-Yûsef are the *'Arab es-Sebârdjah* (D. 4), who occupy about 25 tents in the country of er-Rumsanîyeh. They cultivate some land and rear cattle.

'Arab er-Rekêbât (B. 7) (or Erkêbât), the "owners" of the Wâdy es-Semakh.—This small Bedawîn tribe of about 80 tents has established itself principally in the valley, and built a few miserable huts out of the ruins. Their head-quarters are found at the winter village of el-'Adêseh. Besides, they cultivate a portion of the east coast of the Lake of Tiberias, and are consequently in part tributary to the Kada Tŭbarîya. They are a poor but friendly people, although malicious tongues aver they are unable to leave off their unpleasant vagabond habits. But they are by no means bloodthirsty, and are contented with little. On their account the east shore of the lake

is in somewhat bad repute, and not unjustly, if they are the same of whose robbing propensity Seetzen has already spoken ('Ritter Erdkunst.' xv., 272).

'Arab Segûr el-Ghôr (B. 8).—A branch tribe of the Beni Sakhr, who, in earlier times, possessed the upper part of the Jordan valley, but have now been driven further south. At the end of the last and beginning of this century they were the most fearful robbers, and even to-day, the booty-loving Segûr el-Ghôr give the Kada Tŭbarîya, to whom they are tributary, plenty of work.

'Arab es-Siyâd (B. 4).—On the east coast and slopes of the Huleh Sea. They are a small tribe; I counted about 40 tents; but there is possibly another portion of it in the lowlands of the Huleh Sea.

'Arab et-Tellawîyeh (B. 6).—This tribe camps in the Batîhah, and on the low slopes bounding it on the north. They grow corn, grain, and vegetables on the plain; and in the rainy season withdraw to their winter villages, et-Tell and el-Mes'adîyeh, in the Batîhah, and er-Rafîd on the Jordan, a part also to ed-Dikkeh. Their name is derived from the village et-Tell, and they have about 50 tents, whose inhabitants in Batîhah are under the jurisdiction of the Kada of Tiberias, whilst the other villages are under that of el-Kuneitrah.

'Arab Turkomân Teljeh (C. 4).—A Turkoman tribe of the Jaulân. The 300 tents which they possess are

on the whole somewhat better than those of the Bedawîn Arabs; their draperies, also, with a design imitated from the Persian, differ from that of the goat-hair carpets found in the Bedawîn tents, although the Turkoman formerly supplied the Bedawîn with carpets. They have numerous flocks of cattle, which are valued less for their race and milk than as fatted cattle, which are excellent and much sought after. Besides this they possess a noble breed of horses, the best of all, except those of the 'Anazeh Bedawîn of the Haurân. The chief Sheikh declared to me that he had recently sold a snow white mare for 1,000 Napoleons, in ready money. Their headquarters are situated on the beautiful spring of el-Ghadirîyeh, but several families have permanently settled themselves in the villages. Their winter villages in the Jaulân are, like those of the Bedawîn, miserable quarters. They are also great beggars, and never hesitate when occasions arise to compound to their own advantage 'mine and thine.' Consequently these great bearded individuals do not inspire a traveller with much confidence, but they are very hospitable.

'Arab el-Wesîyeh (B. 5).—As has been already said, this Bedawîn tribe lives in blood feud with the tribe of the Tellawîyeh, a state of things productive of great unpleasantness to the visitor of these close lying districts.

They graze on a narrow strip of central Jaulân, from

the east of Jordan to Ghâdîr en-Nuhâs, are fairly big cattle rearers, and have 120 tents. A small part has separated from the tribe, drawn off eastward, and pasture their cattle on the land of the great tribe of the 'Arab en-Nu'êm at Tell el-Faras, in return for which they give a share of the stock. During the rainy season they withdraw to a number of winter villages, but their head-quarters remain at 'Elmîn.

'Arâk Abu Jedeiyeh (B. 8).—Steep earth walls on the Yarmûk below Khirbet Jort ed-Dhahab in the Ghôr, which are formed by the bed of the river becoming gradually deeper.

'Arâk el-Ahmar (C. 8).—A rugged precipice with basaltic heaps on the northern slope of the Yarmûk, west of Dabbûseh.

'Arâk el-Arrâbeh (B. 8).—The northern slopes of the Yarmûk, not far from el-Hammeh, which fall in terraces from Sahel el-'Arrabeh, on the high plateau, to the river.

El-'Araj (B. 6).—A large, completely destroyed site, close to the lake in the Batîhah. The building stones of basalt are unusually large; also the foundations, which are still visible, and are built in part with white mortar. A group of palm trees stands south of the ruin, and dips its roots in the mud of the damp marshes, over which the traveller is brought by an old stone path. It is not possible for riding animals to cross it, for the stones have

become so loose, and no longer permit a firm footing. But as there is a threatening morass 6½ feet deep on each side of the old dam, they must pass on the upper part of the plain. This dyke is the remnant of an old practicable Roman road, whose traces can be followed from el-'Araj to et-Tell.

For several years a large well-built corn magazine has stood on the ruin. It is the Hâsil of the famous leader of the Mecca pilgrims, Muhammed Sa'îd Pasha, who, beside his religious claims, has also a large interest in the finest and most lucrative strip of land of the Jaulân and Haurân, and over these rules with almost unlimited power, and free from all taxes. He is also the owner of a part of the Batîhah. In the neighbourhood of this magazine the Bedawîn of the plain are encamped: here the Kubtiyân idle, here the fishermen from Tiberias land and mend their nets, here also the traveller finds a guide for the country most easily, and in wet weather finds excellent lodgings with the manager of the magazine, unless the latter is absent in Tiberias for purposes of recreation at that particular time.

Ard el-'Alâ (C. 7).—West of el-Yâkûsa, bordering the Ard el-Rummaneh.

Ard el-Balû'a and 'Ain el-Balû'a (C. 2).—The country and springs in the north of stony Jaulân. The country is so called — Bâlû'a means abyss,

grave—because it was the scene of bloody feuds between the villages of Skêk and Summâka at the time when these were still inhabited. The Bedawîn still speak with horror of that period, scarcely a generation back. The spring is perennial and irrigates some vegetable gardens near Kurm el-Emir.

Ard el-Ekhdeiyil (B. 6).—A stony district of land in the Batîhah near el-Ahsênîyeh.

Ard el-Huleh (B. 3).—The whole country of the marshes of the Huleh Lake, a swampy territory thickly overgrown with papyrus. It abounds in snipe, wild ducks, francolins and many other kinds of birds, and is consequently much resorted to by the hunter, but as carefully avoided by the inhabitants on account of the noxious fever.

Ard er-Rummâneh (C. 7).—The plain south-east of Fîk, formerly a pomegranate tree garden (Rummân).

El-'Arêt (B 6).—The bald terraced mountain ridge which extends from el-Lâweh, in the north of the Wâdy es-Semakh towards the lake. According to its position and nature, and leaving Gadara out of the question, it corresponds to the place mentioned in the Bible where the swine 'ran violently down a steep place into the sea' (Matt. viii. 28), because the precipices fall more ruggedly here than anywhere else on the east coast of the lake; and, moreover,

Kursi, which nominally corresponds to the Biblical Gergesa, lies at the foot of this fall.

'Arkûb et-Tînîyeh (B. 8).—Also a part of the northern slopes of the Yarmûk, not far from ed-Duer, terminating in a circular cone.

El-'Aselîyeh (B 5).—A ruin of unusual extent, with an enormous number of large hewn and unhewn building stones, giving evidence that at one time this place was of great importance.

The meaning of the name, "place of honey," does not bring us any nearer to the history of the old place; and the ruins, so far as I could judge in a hasty examination, do not point to any definite period of architecture. Mid-way below them is the grave of the Sheikh Mûsa, who is so much honoured that the place is known by the collective names of Sheikh Mŭsa wa'l-'Aselîyeh. I am, however, unable to fix the age to which this Moslem saint belongs.

West of the ruins, where the basalt terraces make a fall, we saw traces of a firm city wall, built of powerful rude squares, which surrounded the lower portion of the town, where a beautiful plain stretches against the lava terraces. At the foot of the latter, the clear abundant spring, 'Ain esh-Sheikh Mûsa, bubbles forth from a solid stone setting built with white mortar; it irrigates the environs. There is also here a Mazâr or memorial of the Sheikh Mŭsa shaded by large and very old terebinths and oaks.

Other building remains, and large hewn stones present themselves in the neighbourhood.

'Atâlî ed-Duêr (B. 8).—Perpendicular basalt walls at the ruined village of ed-Duêr which bound the course of the Yarmûk.

El-'Awânîsh (B. 7).—Ruins of a village with some old remains and a good strong spring on a level and very well-sheltered spot, immediately below the steep upper walls of the Wâdy es-Semakh. The spring, 'Ain 'Awânîsh, flows from the Wâdy es-Semakh and irrigates the ground near the bottom of the valley. At the foot of the slope below the ruin there is an isolated lime-stone hill, with a solitary well-built winter hut belonging to the 'Arab er-Rekêbât, called Ferj 'Awânîsh. The mountain ridge above the ruin is also called el-Awânîsh. According to the statement of the natives, the place was once important, and this is confirmed by the fact that the same name is attached to several places in the neighbourhood; but all the same, the place cannot have been of great extent.

El-'Aweînât (D. 2).—Three springs, without any flow, close to the northern border of the Jaulân; the water is bad, and is used only for the flocks.

'Ayûn (B. 8).—A ruined village in the southern extremity of the Jaulân plateau, on the western margin of the Wâdy Mas'âud. The old settlement covered a space of several hektars, and presents traces of different

masonry of modern, mediæval, and ancient times. A number of large, mostly unhewn, basalt stones lie heaped up between the falling huts of a Bedawîn winter village; the foundation walls of buildings in Moslem times, and Roman remains in the form of basaltic shafts of columns, still exist; these last measure 5 feet in length, and 12 inches across. There are also some old subterranean corn magazines with traces of basalt roofing. An old basalt stone, 28 inches long, at present the door-post of a small hut, bears the Greek inscription of Fig. 19. In any case, at

Fig. 19.

Inscription on door post in 'Ayûn.

one time, the place must have been important. On account of its position it commanded the outlet of the Wâdy Mas'âud and the valley of the Yârmûk, with the country of el-Hammeh. The head of the

valley falling eastward is called Wâdy 'Ayûn, lower down, where it joins the Yârmûk, Wâdy el-Mugheiyir. While I was stopping there a band of Ghawârneh gipsies had several donkeys yoked together, treading out the maize, whilst the women cooked beneath the open sky, and some half-grown impudent youths busied themselves in bringing the threshed-out maize into one of the old corn store-houses of 'Ayûn. Others made faces at us. Maize flourishes excellently on the southern plateau.

'Ayûn el-Fahm (D. 5).—A number of fine springs at Tell el-Ferj, whose waters irrigates the upper Joramâyah.

'Ayûn Mukhladi (C. 4).—Large running springs above el-'Ullêika. The clear stream contains excellent drinking water and flows into the Wâdy Kêfr Naphakh. One arm of the stream crosses the Roman road and flows in a curve below the Wely Marzûk, likewise into the above mentioned wâdy, after having been already used to irrigate the Italian corn. The lower portion of the springs bear traces of masonry, aqueducts, &c., which, however, may very likely be modern.

'Ayûn es Suwân (D. 3).—A large Circassian village near el-Kuneitrah, situated on both sides of the spring and pool of the same name in the midst of a beautiful and fertile plain. It is bounded on the west by Tell Abu en-Nedâ, and in the east by the spurs of the

Hâmi Kursu. The village comprises at the present day 100 buildings, with about 450 inhabitants above the age of 10 years. The buildings are composed of basalt stone, without any mortar, but the walls are firm and solidly built. Each dwelling-house, with its little vegetable garden, is encircled by a court.

On an open place bordering the spring is the Mosque, shaded by willows, never absent from a Circassian village. The whole conveys an impression of industry, order, and cleanliness. In opposition to the dirty narrow streets of the Fellahîn villages, which wind irregularly between the huts and ruins, and which are beset with lazy Arabs, we find here broad straight streets, filled with active busy figures, always on the alert to repair damages, and build up anew what is necessary. There are heaped-up hay-cocks, reminding one pleasantly of home, and creaking two-wheeled carts are drawn over the even streets. If only the faces were in harmony with the peaceful conduct! Instead, one sees nothing but wild, forbidding, malicious faces, and a stranger scarcely ever receives a friendly greeting. The graveyards also outside the village are carefully kept.

No ancient remains are to be found. The village only arose about 7 years ago, and was only arbitrarily designated by the officials in el-Kuneitrah according to their own admission. But there lies, here and

there, some old building stone that has come from the walls, and we might perhaps have been able to discover some name, handed down by tradition, if the Bedawîn had not been driven away.

The Circassian villages increase rapidly. 'Ayûn es-Suwân, for instance, a year ago had only 60 dwelling houses. The population increases with the extension of landed property and the clearance of the ground from bushes and stones.

'Ayûn Tawârik Hêtal (D. 7).—Eighteen moderately large springs on the north and eastern slopes of the Wâdy Hêtal. Oleander and kuseb (cane) bushes mark out their course down the slopes.

'Ayûn et-Tôm (D. 4).—Several large springs which discharge into the Wâdy Selûkîyeh. The 'Arab es-Sebârdjah encamps in the neighbourhood of them.

Ayûn Yûsef (D. 4).—Three fine springs at the foot of the Tell Abu Yûsef. They flow into the Wâdy ed-Delhamîyeh.

'Ayûn ez-Za'ôra (E. 5).—Numerous springs at the foot of Tell el-Faras ; is one of the principal encampments of the 'Arab en-Nu'êm. As the country is tolerably stoneless, gardens can be laid out without much trouble.

El-'Azarîyeh (B. 2).—Also called el-'Ozeîriyât, a village in the plain of Baniâs, which I did not visit.

Bâb et-Tumm (A. 8) is the name given to the southern mouth of the Jordan from the Lake of

Tiberias. During the largest part of the year a boat is kept there ready to transport animals and baggage.

Baheiret el-Huleh (B. 4).—This lake measures at its greatest length $3\frac{1}{2}$ miles, and 3 miles at its greatest breadth. The measurements vary considerably in consequence of the low swampy bank, and also according to the amount of rain during the year. As another consequence the form of the lake, more especially in the north, where several arms of the Jordan discharge, is not always the same. Altogether the lake is pear-shaped in form, with its largest curve on the west coast and a sharp point on the south. The east coast is luxurious for the growth of plants, but gets somewhat boggy in the north. Its level is only about 7 feet above the Mediterranean Sea. (Western Survey, P.E.F.). The district is hot and malarious but the favourite resting place of the water-fowl. The Baheiret el-Huleh is identified with the Lake of Hermon of the Old Testament, and Lake of Semechonitis of Josephus.*

* It is customary to identify the Lake Huleh with the 'waters of Merom' (Jos. xi. 57), but this is neither capable of proof nor probable. It should be observed that Josephus ('Ant.,' V. i. 18) places the spot where the defeat of Jabin at Beroth took place in Upper Galilee, and consequently does not look for it in the Jordan lowlands. Instead of the Lake of Semechonitis, according to Josephus (4 Wars. I. 1), it is 'Lake of the Semechonites,' viz., of the inhabitants of the district of Semechonitis, or of a place called Semechon.

Bahr Tubarîya.—The Lake of Tiberias. The whole coast district is under the administration of the Kada Tŭbarîya. From its inlet to its outlet the lake is nearly 13 miles long and $5\frac{1}{2}$ miles broad from Tiberias to Khirbet el-'Âshek, on the east coast. It reaches its greatest width several miles north of Tiberias and tapers somewhat at each extremity. Rather more south than the Jordan mouth lies Semakh, so that the greatest length of the lake is 13 miles exactly. At Semakh its southern end forms a beautiful rounded bay, which is enclosed by earth walls from 16 to 33 feet high; whilst the northern end east of the Jordan has a very flat coast, penetrating with bays and creeks into the swampy Batîhah.

Whilst the western coast is rocky and stony, the entire east coast bounds a fine fruitful plain about 878 yards broad (see Fig. 20, and View of Wâdy es-Semakh). On the eastern edge of this plain the Jaulân slopes begin to rise steeply. A gravel stratum lies immediately on the east coast. With the exception of the Wâdy es-Semakh and the Wâdy Fîk or Enghib, which have abundant water in winter, but dried up in summer, there are only a few small wâdies which feed the lake from the east. In summer it is only the afflux of the Jordan and a few small streams on the western coast which feed the lake; consequently the surface of the water, which, according to the Survey of Western Palestine (P.E.F.), lies 6,825

feet beneath the level of the Mediterranean Sea, sinks and rises somewhat according to the season of the year.

The fluctuations may easily be recognised on the white deposit marks on the town walls of Tiberias.

Fig. 20.

View of eastern shore of Sea of Galilee.

My observations at different times of the year yielded the result that the greatest fall for many years was obtained on December 17th, 1884, in consequence of

the lack of rain. The water stood at that time $4\frac{1}{2}$ feet lower than on the 4th January of the same year, $20\frac{1}{2}$ inches lower than on February 27th, 1884, and $14\frac{1}{2}$ inches lower than on September 28th, 1884. The water of the lake is sweet and tolerably clear. Storms and sudden currents, with bounding waves, are not uncommon, so that a journey across in spring and winter, with bad sailing boats unskilfully guided amongst the ships of Tiberias, is not always unattended with danger. In summer the heat on the lake and surrounding region is rather too depressing, consequently one should always choose the very earliest hours in the morning for riding and working. The lake contains a quantity of eatable fish of all descriptions, which are named in the volume treating of the Flora and Fauna of Palestine in the English 'Survey of Western Palestine' (P.E.F.). Also crabs, and in winter many sea-fowl, principally wild ducks and water hens, enliven the shore. The east coast was formerly covered with towns and buildings, as is proved by the numerous ruins. To-day there are only two villages still standing, Semakh and es-Samra. At the foot of the mountain Moka'adla several sulphur springs break out on the coast; they are called el-Hammeh, and have a temperature of 105° (at an atmospheric temperature of 94°), and each pour forth about 4 gallons of water a minute.

This small quantity soon trickles into the gravel,

whereas by a proper enclosure of the spring it could be easily kept together.

El-Batîhah (B. 6).—The ordinary name for the charming plain surrounded by gentle slopes on the eastern edge of the Lake of Tiberias. Its extent between the Jordan and the ruin Duket Kefr 'Akîb is 4 miles: between the mouth of the Wâdy Jora-mâyeh and its entrance into the plain is 3 miles, whilst its breadth in the centre reaches only 1½ miles. The ground, probably a part of the old lake basin, is muddy but rough, and owing to the deposits of four large rivers which convey their silt and discharge themselves into the plain, it has become more and more raised.

The plain is sown two or three times during the year by the 'Arab el-Tellawîyeh, and grazed by the buffalo herds of the Ghawârneh, or Kubtiyân. Numerous large springs break forth on the northern edge: the water is used by the Bedawîn to irrigate the fields after the first corn harvest in June, in which they then sow Indian corn. When this is gathered in they plant vegetables and water melons. All three harvests yield abundant produce. In its lower part on the Lake the Batîhah is very marshy; the Lake breaks deeply into the land (Zakîyeh), making the coast completely untraversable. In its north-western part the plain is covered with ruins, most of which are of fair size. The Bedawîn have constructed

winter huts out of the old building stones. The Batîhah is poor in tree growth: this only begins on the northern edge. Wild figs, Pomegranates and Dom, are to be found in the neighbourhood of the springs: palms and fruit trees in el-Mes'adîyeh and el-'Arâj. As to the aloes mentioned by earlier travellers, only stunted remains are now to be seen in the burying-ground of et-Tell. The temperature of the plain is a very high scorching one, like that of the Jordan Valley, and during the south wind especially is nearly unbearable. Add to this the marshy ground on the coast it will be seen that the climate of the Batîhah is an unhealthy one, and breeds fever. By proper drainage this nuisance could be somewhat lessened, and, at the same time, the productiveness of the soil increased.

Bêdarîs (C. 3).—A large ruin in stony Jaulân. Although there are no huts, nor a single entire building to be found at this place, there are a great number, mostly unhewn, of large building stones on square foundations to be found here, that it is evident this is the site of a well-built town of considerable size and great antiquity. These ruins have fallen together in heaps, and lie in such confusion that nature, probably by an earthquake, must have contributed to the work of demolition. There are traces of an old road leading from Têlestân right through the ancient site southwards to the Roman road. Further distant

we find old burial places which are overlaid with basalt slabs, and also large subterranean rooms, 13 and 16 feet square, which are enclosed by blocks of basalt still standing, and were originally roofed with the same material, but are now exposed and ruined owing to the avarice of the Turkoman. The walls measure, so far as is visible, from 30 to 40 inches in thickness. The following diagrams illustrate the arrangement of the layers (Fig 21). The gaps are not

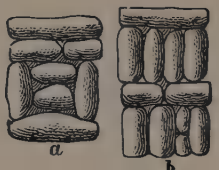


Fig. 21.

Layers of Basalt Stone Wall.

filled in with mortar; nevertheless they are never wider apart than one-third of an inch at most, and the stones are unhewn. As for ornamentation, I found a column or capital in the Haurân style (see Jibîn and Kuneitrah), and a simple rectilineal cross on a pyramid-shaped stone lately dug up. From that it may be concluded that there was once a Christian settlement at this place. If once the rubbish was cleared away and the foundations laid bare, there is no doubt that the veil over the part of this, as well as many other large ruins of Jaulân, would be lifted.

Ben et-Tellul (B. 8).—The country between the Tellul es-S'âlib and the slopes of southern Jaulân, not far from the southern bay of the Lake of Tiberias. It forms a proper continuation of the east coast of the lake—a fruitful tract.

Bîr ej-Jekûm (B. 7).—A miserable village, consisting of thirty-one huts, built out of basalt and clay, situated on the western slope of Jaulân, near Skufiyeh. It contains 150 inhabitants. The Fellahîn cultivate the slopes and some land on the east coast of the lake.

Bîr el-Ajam (E. 4).—A large Circassian village on the Hami-Kursu, consisting of separate parts. It is built in the same sort of way as 'Ayûn es-Suwân, comprises at the present day about eighty huts, and according to the nominal census 340 souls. A fine spring lies in the north, and another near a pond in the south, of the prosperous village.

Bîr el-Kabak (D. 5).—Several perennial springs in Wâdy Selukîyeh. From here downwards the valley is called Wâdy Bîr el-Kabak.

Bîr et-Trûh (D. 7).—A large pool with a spring, on the road by the village Hetal. Beautiful oleanders grow.

El-Bîreh (D. 5).—A winter village of twelve stone huts and several ruined ones, in the possession of the 'Arab ej-Je'âtîn. A number of large unhewn building stones lie round a very old Butmeh (terebinth), which shades the grave of a saint and a Bedawîn grave-

yard. Between them traces of rectangular foundations present themselves. The ruins cover an area of about 64 acres, consequently the place was not unimportant. The name may possibly be explained by the Aramaic signification of 'Fort Castle;' we have then the alternative of recognising in the ruins of an old fort, or that the name refers to a colossal cleaved block of rock, a fragment of the burnt lava stream which lies in proximity to the terebinth. North of the place the good spring 'Ain el-Bîreh flows, conveying its water to the Wâdy el-Bîreh, and runs in a narrow stony channel into the Wâdy el-Yehudîyeh, but takes before the junction the name of Seil el-Kurdîyeh.

Bîrket el-Ekfeir (C. 2).—A large natural reservoir, north of Za'ora, supposed to have been a spring. From here one can obtain a wonderful view over Baniâs, its castle, and the upper course of the Jordan.

Bîrket ej-Jarab (B. 8).—See el-Hammeh.

Bîrket Râm (D. 2).—A small inland lake of northern Jaulân, called by the inhabitants of Mejdel esh-Shems, Bîrket Râm; by the inhabitants of the Druse villages, el-Buk'âti and Jebata el-Khashab, its name is Bîrket Rân. Thus both names are usual. In June, 1885, the lake measured at its greatest length, from south-east to north-west, 690 yards, and at its greatest breadth, near the middle, 523 yards.

Its circumference is about 1,744 yards; in the east

its long rounded form has a small bay. The lake evidently fills up the mouth of a crater.

It has neither affluents nor effluents on the surface, but is enclosed by steep crater walls of earth and basalt rocks, which rise to 200 feet above the level of the water; this belt is highest in the south, sinks towards the north, and is lowest in the north-west. The rear of the belt, which makes a fair circle round the Birkeh, is extraordinarily narrow, and falls off sharply outwards, so that the crater stands somewhat isolated. It is only in the south that the slope of the Krum et-Turkoman comes quite close to the walls of the crater; on the other side it is bordered by the Merj el-Yafûreh. The water-mark of the lake very much depends on the amount of rain of the year, so that the form and size fluctuate. This observation is confirmed by the fact that when the above measurements were made, a narrow plain of from 50 to 70 feet between the brink of the water and the slope was left, and traces of an expanded surface of water were visible upon it. The coast and an inner strip, 70 to 100 feet, are overgrown with swamp vegetation, in which numerous gorgeous toads move about. Near the shore the water is clear and pleasant tasting, and has no brackish after-taste; its temperature is 77° Fah. at an atmospheric temperature of 81° Fah. In the middle, where the water is free of any kind of plant growth, there is, according

to the unanimous testimony of the natives, a whirlpool, to which they would only venture by dint of tremendous promises. As we had no boat at hand we were unable to test their statement, or to settle whether the lake basin in the centre is really of unfathomable depth. Fish are not to be found in the lake, but I observed some beautiful large blackish-green turtles. Numerous sweet springs break out on the coasts, but their slight flow does not nearly replace the daily evaporation.

Consequently, one may conclude with certainty that there are subterranean channels or springs, because, in the absence of these, the water of the lake dependent on the rain for replenishment would lose its clear freshness. The surface of the water lies 3,360 feet above the level of the Mediterranean Sea. On the shore we find huts of underwood and earth, which serve the inhabitants of Mejdel esh-Shems as places of ambush for duck-shooting in winter. These birds appear in such large flocks, that on the shore at nights they can be knocked down dead with sticks.

Bîrket Râm must be identical with the Lake Phaila of Josephus (3 Wars, X. 7), because its position, as well as form, corresponds with the statement of the Jewish writer. But his assumption, and that shared by his contemporaries, that the lake is the real source of the Jordan, is no longer considered worth

any one's serious notice. (As regards Burckhardt's confusion of Bîrket Râm—not er-Râm—with 'Bîrket Hefah,' see under Kefr Naphâkh.)

El-Breikah (E. 4).—One of the largest and best of the Circassian villages at the northern foot of the Tell el-'Akkâsheh. It contains more than 100 houses, 85 families, or about 425 inhabitants, amongst them 68 fighting men. This village, like others belonging to the Circassians, cheers

Fig. 22.

View of el-Breikah and Tell el-Akkâsheh.

the eyes of the stranger with its clean and wide straight streets, big hay-cocks, and a well-built

mosque. It possesses a spring in the north with icy-cold water, near which there is a pool, whose water irrigates the beautifully laid-out gardens of the Sheikh. The inhabitants are particularly hospitable, and, thanks to the eminent educated Sheikh, the chief of the collective Circassian villages, who welcomes European action and ardently desires the construction of a railway. The country of el-Breikeh is stony, but fruitful with splendid pasture land. In the south also the villages receive some water from the Seil el-Breikeh and the 'Ain el-Hajâra. Its position, owing to the Hami Kursi and Tell el-'Akkâsheh in the west, is very protected and healthy. As regards antiquities, in the Circassian villages the settlers have built up and whitewashed, present but few. It is, however, certain that they have only settled on the old ruined places where building stones lie ready to hand, and where they hoped to find treasure. According to their testimony, this last hope has not deceived them. So much as one is able to see, viz., that the old place was fortified by a strong wall in the east. In the village itself one finds crosses and lintel ornamentations from ancient times. One of these ornamentations (Fig. 23) is worthy of notice, because on it is represented the cross and the Jewish candlestick; it seems, indeed, as if the latter were added as a supplement to the cross.

Breik'ah (C. 8).—A small crumbled ruin on the western declivity of the Wâdy Masâud. A few

Fig. 23.

spendid old trees spring out of the ruins, under which are some winter huts fallen into decay.

El-Buk'âti (D. 2).—A village of the Druses, consisting of 35 rather proof-built huts, with about 160 inhabitants in Merj el-Buk'âti. This cultivated district of the Druses has certainly good soil, also springs and some aqueducts; but it is cold, and in winter-time absolutely enveloped in snow. The Merj is obviously the hollow of a large crater, whose walls were formed by the Tellul el-Buk'âti, the Tell esh-Sheikhah, the woody Tell el-Ahmar, and the Tell Krüm et-Turkoman. An important trading street, el-Buk'âti, corresponds to the Bokâtha mentioned, but not visited, by Burckhardt. (Ritter, Erdkunst, p. 162.)

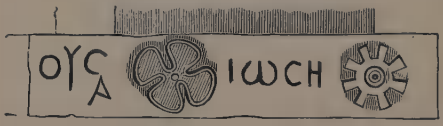
El-Butmîyeh.—Exhibits better masonry than el-Eshsheh. We also find in the west, near the old highway, the ruins of an old building called el-Khan, which contained several apartments 10 feet wide, divided into two parts by a single arch.

The arch presents the usual simple Haurân moulding (Fig. 24).

Fig. 24.

Mangers, like those in el-Ahsenîyeh, for the cattle, and a large cistern in the court, testify to the purpose served by the building, namely, an inn.

These remains date from the Arabic age; only the lintels of the entrances, with their Christian symbols—namely, rectilinear crosses, vine-leaf ornamentation, and weather-worn inscriptions—recall an earlier Christian period (Figs. 25, 26). Very peculiar



Figs. 25, 26.

are the greatly weather-worn decorations of a door lintel (Fig. 27), on which may still be distinguished

Fig. 27.

some Greek signs, besides a ten-branched figure. recalling the Jewish candlestick.

The village occupies a position only slightly elevated above the surrounding country ; it abounds in old building stones, and possesses a spring with a large aqueduct in the western neighbourhood.

Dabûra (B. 4).—A winter village of tolerable size, close to the Wâdy Dabûra, above the Lake of Huleh. Near the wretched Bedawîn huts a large modern corn magazine stands. The old site is north of the village, where a number of very large unhewn building stones and foundation walls, like in Bêdarûs, are to be met with. Here also they lie in confused heaps upon one another. Fine oaks and terebinths grow out of the once inhabited places. The remains, even at the present day, proclaim a large, firm, and carefully built settlement. The position is certainly a peculiarly fine one, inasmuch as it commands the Lake of Huleh and its lowlands. On some art-worked fragments I observed a small basaltic column, which is inserted in the wall of one of the huts deserted in summer. Near this spot the Wâdy Dabûra has rocky and steep slopes. It commences at the Tell Abu el-Khanzîr, and is called at first Wâdy Kefr Naphakh. At el-'Ulleika the waters of several springs unite in its bed, and, for the first time, makes below this place a deep incision into the ground. Just before Dabûra the brisk stream falls over high basalt walls into a rounded rock hollow ; it then flows along a narrow gorge for half a mile and enters the charming plain of

the Lake of Huleh, to which it brings its water near the southern part. The slopes of the Wâdy Dabûra are thickly grown with myrtle (Rîhân and Dôm); in the village itself as well as in the neighbourhood there are a great number of liquorice trees (Umm es-Sûs). This ruin, so I have lately heard, is to be again colonized, by the Jews who have settled on the slopes of the Jaulân near Dabûra.

Ed-Dajjajîyeh (C. 7).—Six winter huts, built of old stone, lying on the rear of a hill in Wâdy es-Semakh. They are the property of the 'Arab er-Rekêbât.

Ed-Dann (D. 7).—A stone circle and some small un-hewn building stones scattered about. These, as well as the adjacent lying Rujum el-Fâr, belong to the style of the ancient monuments which have been described under el-Yâkûsa. A second *ed-Dann* (C. 5) is near er-Râwiyeh, in the north-west of Jaulân, and marks one of the Dolmens of that place.

Dannikleh (C. 4).—*See* Khan Bandak.

Ed-Danurîyeh (D. 5).—According to some el-Tanurîyeh, though the former is the official form. It is a winter village with a few huts, mostly decayed, and old building stones, at the foot of the Tell, which is called Umm ed-Danânîr; the name is derived from Dînâr the old Arabian coin.

Deir 'Azîz (C. 6.)—A small winter village, consisting of ten huts on the Wâdy Deir 'Azîz (Wâdy esh-

Shukeiyif). It belongs to the 'Arab ed-Diâb, but is not inhabited in summer.

Deir es-Ba'âh (D. 7).—A hill with scattered ruins and folds in the valley of the Rukkâd, below Kefr el-Ma, with a good spring. The surrounding country is romantically wild. Probably a little castle, for the purpose of plunder, or an isolated cloister, but it is impossible to recognise the design.

Deir er-Râhib (C. 4).—A small ruined village, with important ancient remains south of Nu'arân.

Deir es-Sarâs (C. 4).—A wretched winter village, containing six huts, close to the Wâdy Dabûra. It belongs to the 'Arab en-Ne'arneh, and has few remains.

Ed-Delhamîyeh (D. 4).—A ruin, with a few modern and many old building stones, on the border of the similar named wâdy, which commences between the Tell Abu el-Khanzîr and Tell Abu Yûsef.

Ed-Delweh (D. 3).—A small Bedawîn village, consists of five decayed stone huts in the terribly stony country at the western base of the Tell Abu en-Nedâ. Ruins extend over the hill of the village, and also on the plain. One finds broad rectangular foundations constructed of rude blocks of basalt, destitute of any ornamentation. A good abundant spring rises in the western end of the hill, which irrigates excellent pasture land.

Ed-Dhahr (C. 7).—The ridge, which falls in terraces

from Wely Jâfer at Fîk to Mikiall in Wâdy Fîk. It separates the latter from the Wâdy 'Abûd.

Dhahr el-Ahmar (B. 7).—The narrow ridge connecting the real Kulât el-Husn with the southern mountain range. (*See* under Kulât el-Husn.)

Dhahret Umm 'Assâf (D. 3).—The most easterly hill of the Tellûl el-Mukhfy.

Dibbia (C. 4).—A group of fine trees and insignificant building remains of different ages, and some sheep folds, south-west of er-Ruzanîyeh.

Ed-Dikkeh (B. 5).—This ruin, which is not extensive, but rich in ornamentation, lies close to the Jordan, and immediately north of the Batîhah. Close

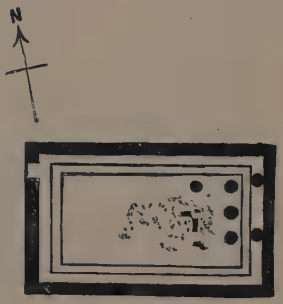


Fig. 28.

Ruin at ed-Dikkeh.

by the stream one sees a decayed mill with an aqueduct, whose construction is far better than that of the mills of modern Jaulân.

The old place stood close by on a small elevation.

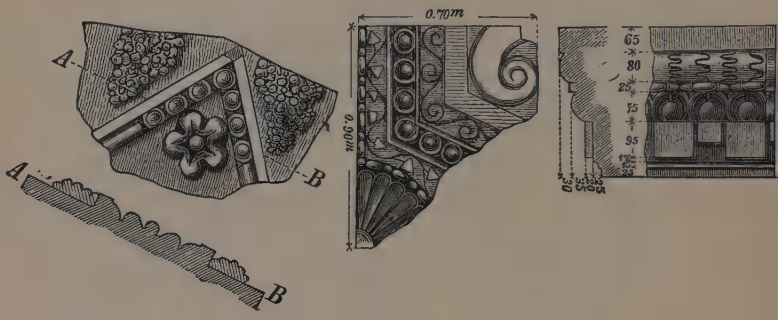
One's eye is first struck by a rectilinear building, 55 feet in length and 33 feet in breadth, whose surrounding walls project over the ruins for several feet (Fig. 28). On the north-west corner an entrance leads into the interior, which has two flights of steps 18 inches in height, running all round it. There are traces of good ornamentation on the walls and also on the columns. Between the outer wall and the steps on the east side are two basalt columns standing; they are only 5 feet high. Whilst in the inner room four more of these at irregular intervals tower forth out of the ruin.

Thus the inner was supported by columns. The surrounding walls were 3 feet thick; the building

Fig. 29.

stones throughout have been carefully hewn. Near the two upper column shafts a winged basaltic figure (Fig. 29), cut in bas relief, lies, which, in opposition to

the other ornamentation, lies upon a low artificial step. The stone is 19 inches long, and 17 inches broad. Outside the buildings are to be found gable-like decorations adorned with grapes (Fig. 30), or



Figs. 30—32.

with the Haurân moulding (Fig. 31), beautiful "egg and pearl" moulding with the native tooth ornamentation, especially ed-Deråah (Haurân), and several twisted double columns (Fig. 33), also some

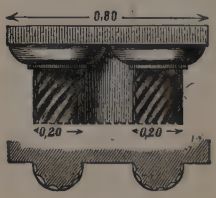


Fig 33.

with smooth shafts. The ruins present a Byzantine character. Nevertheless, if one compare the discoveries in Western Palestine, in the districts of

Safed and Meiron, with those in ed-Dikkeh, a most striking resemblance between the two appears. After a searching examination they there appear evidently as the remains of Jewish synagogues, and, therefore, perhaps it would not be too audacious to include ed-Dikkeh among the number of Jewish buildings (*see* 'Across the Jordan,' p. 243).

Four winter huts of the 'Arab et-Ṭellawiyeh have have been erected on the ruined places; their inhabitants, however, did not present a very friendly face to archæological research.

Dolmens (B. 4, B. 5, C. 6, E. 6)..—These characteristic remains, of an age of antiquity of which it is still uncertain, are found in large numbers in stony Jaulân. Sometimes well, sometimes badly preserved, in groups, they often cover thousands of square yards of a district in which the basalt occurs in slabs. The best preserved is the dolmen field of 'Ain Dakkar in the upper Zawîyeh esh-Shurkîyeh of Jaulân, which I have described in detail in 'Across the Jordan,' p. 62.

It only remains to mention here those places where they occur, also west of the Rukkâd, and to represent any especially remarkable shapes.

The dolmen fields of 'Ain Dakkar, called by the natives Kubûr Beni Israîl, 'graves of the childen of Israel,' extend in hundreds of well preserved specimens down to the Jisr er-Rukkâd; they go also west

of this. Single dolmens are to be found north of the bridge as far as 'Ain el-Mu'allakah, where the extremely stony lava region is especially suitable for the necessary material. The dolmens here (Fig. 34)

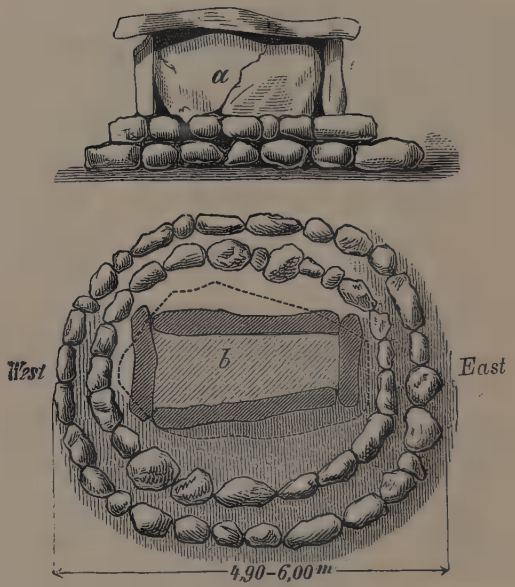


Fig. 34.

Dolmen at Jisr Rukkad.

a. Side View.
b. Plan of.

consist of a double terrace of slabs running from east to west, and which are from 5 to 8 feet in length, 28 inches in height, and 8 to 12 inches in thickness. The narrow sides of the tombs—for these they are

without any doubt—are likewise fenced round with a small slab. The rectangular chamber thus formed is covered with a single strong basalt slab, measuring, as a rule, 9 feet long by $6\frac{1}{2}$ feet broad, and 14 inches thick. The west side of the chamber is broader ($4\frac{1}{2}$ feet) than the east side ($3\frac{1}{2}$ feet); it therefore gets narrower from west to east. This circumstance appears to me to show plainly that we have to do with burial places here; the upper part of the body was laid in the broad western side, so that the face should be turned to the rising sun according to the old practice. The dolmens are elevated on raised terraces from 2 to about 3 feet in height. The floor of the hollowed chamber is covered with earth; on further digging, however, one strikes a rock slab under which nothing was found but the remains of bones and small pieces of charcoal.

In one single place only two rings, $2\frac{3}{4}$ inches in diameter, came to light; they were made of smooth copper wire ·09 of an inch thick, and had scarcely any perceptible ornamentation.

This was the only find in the way of relics, although several dolmen were thoroughly examined.

On the northern course of the Rukkâd there are very few dolmen; but, on the other hand, they are especially numerous on the western side of the Jaulân, between the Tell esh-Shebân and er-Rawîyeh (see Fig. 35). These, however, are somewhat different

from those found at Jisr er-Rukkâd; over small stones, a huge block, $7\frac{1}{2}$ feet high and 6 feet thick,

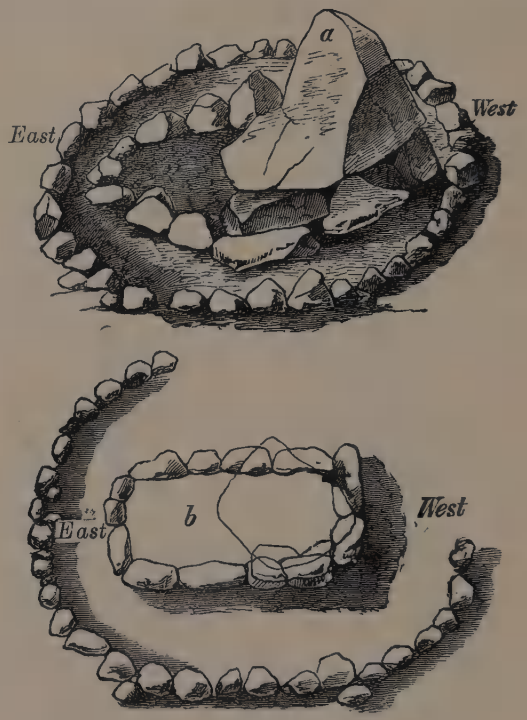


Fig. 35.
Dolmen near er-Râwîyeh (ed-Dann).

a. View.
b. Plan.

formed the roof, for here the basalt is of a somewhat different formation.

This cromlech is surrounded by a stone circle,

whose diameter is 19½ feet, and 27½ inches in height. The western side is open. The chamber has a length of 12 feet, by a breadth of 4½ feet; is not narrowed towards the east, but is facing that direction. The blocks which form the outer stone circle are rudely set; the whole is less skilfully arranged than the dolmen at the Rukkâd.

Proceeding from here towards the south, one finds on the via maris (not far from Nu'arân towards the east) some isolated memorials of this description; and at Dabûra (Fig. 36), near the Sheikh Khalîl, there is a rude circle of large stones, 6 feet high, with a diameter of 33 feet. Over these lie two great blocks, one against the other, having each a length of 8½ feet, by a breadth of 5 feet, and a thickness of 3 feet. The major axis is likewise east and west. The side stones have disappeared, probably broken down under the immense weight. On the slope below Dabûra there are many more similar monuments.

Another extensive Dolmen field stretches from Kubbet el-Karâ to the ruins of el-Kuneitrah. These, however, are all fallen down, and it is very seldom that the top slab is found on the solid substructure. Their construction is exactly the same as those at Jisr er-Rukkâd, only the single constituent parts are smaller. Finally, at Tell el-Muntâr, and on its slopes as far as the ruins Kŭsr Bêrdawîl and the Wâdy esh-

Shebîb, we find a large number of dolmen of the same description as those at Jisr er-Rukkâd. These

Fig. 36.
Dolmen at Dabûra.

discoveries are sufficient to show that the Jaulân is very rich in these old monumental constructions. Who made them? When did the giant arm which piled up the enormous block of rockwork live? These questions remain unanswered; but it appears to me certain that these monuments are in any case as old as the original buildings of the Haurân. They must have already come to light in the Roman period,

because the Romans appear to have taken care of the Dolmen fields. A comparison between the remains of Roman buildings and these old monuments, which often lie close together, leaves no doubt of the greater antiquity of the latter.

What further induced me to assign their origin to the same time as that of the buildings of the Haurân, the earliest of which are mostly subterranean and roofed with basalt slab, is the striking resemblance which the present Bedawîn tombs bear to the dolmens. They seem to be imitations of those burial places erected by the predecessors of the modern Bedawîn in this country, only the tombs of the latter are much

Fig. 37.
Bedawîn Tomb at Kŭlât el-Husn.

smaller and more insignificant. A characteristic example of such a Bedawîn tomb is found on the Dhahr el-Ahmar of the Kŭlât el-Husn (Fig. 37).

Two upright standing stones, 23½ inches high, support a small basaltic roofing slab; the door thus formed is set on the north side in front of the tomb, which consists of rude layers of stones; a circle of slabs runs round the tomb from each side of the door. On the south side of the stone circle, opposite the door, a remarkably large stone is placed, so that these two points immediately strike the eye of the spectator. The tomb itself is turned towards the south, in accordance with the writing of the Koran that the dead should face the Caaba in peace. This alteration of the position appears, therefore, to have been incumbent upon them from religious motives, whilst the general character of the dolmen has been retained.

Perhaps from other finds we shall succeed in obtaining a more exact insight into that period.

Dôm.—A bramble-bush, with a pleasant tasting sweet kind of hawthorn berry; it is principally indigenous to the Jordan Valley.

Ed-Dôra (B. 5).—A ruin with eight winter huts of the 'Arab el-Wesîyeh, between the Wâdy el-Fakhureh and the Wâdy es-Sanâbir. In the west and south, where the city was not so well protected by nature as in the east, there are basalt terraces of steep incline, and a triply thick wall of great unhewn blocks of basalt. It leads south to a pile of ruins, out of which stems of pillars and Doric capitals, and also a corner

pillar, rises. This, I presume, was the old city gate. From here the old city walls run in a sharp angle for a little distance further towards the south-east. On the city gate carefully hewn stones, 6 feet long, are to be found; there are also capitals lying about in other places. In the village itself, which lies inside the city wall, I noticed nothing of interest. A withered 'Fakhireh' stands in the south, which, in spite of its leaflessness, is still always regarded as sacred.

At the foot of the terrace the extremely abundant and fine spring, 'Ain ed-Dôra, issues, and further north-west there is a second one. Both irrigate corn and maize fields and then flow into the Wâdy ed-Dôra, where they turn a mill. This wâdy, like few others, is overgrown with luxurious oleanders and other brushwood, and always contains water, which does not dry up even in the scorching Batîhah, at the place called Wâdy es-Saffah, but runs down into the lake.

Between ed-Dôra and Elmîn well-preserved dolmens, with one or two huge top slabs, are to be found.

Ed-Duêr (B. 8).—A ruin close to where the Yarmûk enters the Ghôr. On the river side it is bounded by a steep rock wall, a doubly strong wall, 3 feet thick, built of unhewn stones joined with mortar, protecting it from the accessible part of the plain: this,

however, is now fallen to the ground, and appears to have contained only a few large rectangular buildings. One discovers also traces of ruins on the southern foot of the hill immediately on the Yarmûk. In the middle of the plateau we find a Bedawîn stone circle, 16 feet in diameter, the east and west being marked out by a large stone, having a depression of 5 feet below the surface. There are also other traces of Bedawîn graves on the slopes of the hills. Ed-Duêr must certainly at one time have served as a point of surveillance for the entrances into the valley of the Yarmûk, and also as a defence of the same. The remains appear to belong to the Arabic time; probably the place played a prominent *rôle* in the bloody battle that took place between the Byzantines and the Moslems, 635 A.D. In the mouth of the Bedawîn the place is bound up with the name of the honoured Arabic hero, 'Antar; but I could not learn any more about him than that he once lived in Ed-Duêr. They are fond of burying at this place, and also at 'Abu Kebîr el-Adêseh, a ruin with winter huts on the southern slopes of the Wâdy es-Semakh. Traces of an aqueduct, many large hewn and unhewn old building stones, and some foundations, prove the antiquity of the place. The beautiful spring irrigates some gardens and a group of palm trees. The place was not without significance, but the Bedawîn conceal and cover up in all haste everything

ancient and strange that comes to light for fear of interference on the part of the Government. It lies close beneath the rock precipice of the high plateau, in a wild, uncommonly stony, but richly pastured district.

Duêr el-Lôz (D. 7).—A small pile of ruins in Wâdy Sîhân.

Duêrbân (B. 8).—A shapeless ruin of tolerable size on the eastern coast of the Lake of Tiberias. It is divided into two separate heaps, which, however, do not reveal anything at all as to their antiquity and purpose. The many building stones are small and unhewn, and till recently were used to construct sheep folds. In the time of Burckhardt and Seetzen, and still later, Duêrbân was a "small village." (Ritter, 'Erdkunst,' xv., Part I., 267.)

Dûket Kefr 'Akib (C. 2).—Ruins on the coast of the Sea of Galilee, with scattered building stones, but few foundations.

El-Ebkurîyeh.—Several sheep-folds, constructed from the ruins of old buildings. The place must have once been important, as shown by the many building stones entirely out of their original position.

In the north the spring of the same name rises; its water flows to the spring 'Ain es-Esfera. The name is not very well known, but it was, however, guaranteed by the Elders of the village in El-'Al.

It was the same thing with El-Mejdelîyeh, whose position only came to my knowledge accidentally, and appeared to have disappeared from the memory of most persons. This ruin, also on the Wâdy Mu'akkar, does not present anything of interest.

El-Ekseir (C. 2).—A stony district near Skêk.

The neighbouring Merj el-Ekseir is a small, fertile plain, with an inclined surface.

Elmîn (B. 5).—A large winter village of the 'Arab el-Wesîyeh. The 40 huts are not so badly built as the other winter villages, but join close to one another, and form a sheltered, compact house-bulwark, against the Ghôr wind. Excepting some old building stones, there are no ruins to be seen. A Moslem saint's grave, north of the village, with a tree, should also be mentioned. At the base of the lava terrace, east of Elmîn, several abundant springs gush out, which irrigate the dura plants of the beautiful terrace, but making the ground in parts boggy, render it perilous for the rider. An uncommonly rich growth of blackberries spreads over these springs, which constitute the head-quarters of the Wesîyeh. Elmîn lies immediately over the Jordan, and affords a beautiful view of it.

Enghîb (B. 7).—A small, miserable village on the east coast of the Lake of Tiberias, west of Kŭlât el-Husn, on a low stretch of hills. It comprises 5 huts, with 20 inhabitants. Burckhardt ('Ritter,' 352) calls it

'Um Yeb,' Seetzen 'En Gab,' the correct mode of writing, however, according to the unanimous testimony of officials and Bedawîn, is نفيب out of which comes the vulgar form انفيب.

The Wâdy Fîk, which flows past the foot of the Enghîb-hill, receives here for a short distance the name of Wâdy Enghîb.

Enjâsa (D. 4).—A small ruin, with large foundations of unhewn blocks of basalt in the stony district below Tell Yûsef. The spring 'Ain Enjâsa is feeble. The ruins are so much decomposed that they are only distinguished with difficulty from the fragments of lava lying round.

Esbitteh (D. 5).—A small winter village, belonging to the 'Arab en-Nu'êm, or their branch tribe the Sebârdjah, consisting of 4 huts near one of the highest, most beautiful, and widely seen terebinths of the country.

Beneath the insignificant ruins we notice a cross

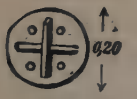


Fig. 38.

(Fig. 38), on a door lintel. The place is beautifully situated and high, but has little water.

El-Eshsheh (E. 5).—A small Bedawîn winter village of 20 huts, at the foot of the Tell el-Fâras. It is inhabited by about 80 persons from one year's end to another; but this place, like the adjoining el-Butmeh, also a winter village of the same size belonging to the 'Arab en-Nu'êm, will soon be entirely deserted, because

the Government require this district as pasturage for the horses of the soldiers from Damascus.

El-Fâjer (B. 4).—A ruin, with decayed winter huts, close to the precipitous Wâdy el-Fâjer, which begins near Bêdarûs, in a deep ravine, joins the Wâdy el-Hamd in the plain, and then runs towards the lake of Huleh. In summer it conveys only a little water.

Es-Feiyât (B. 5).—The rugged rock gap through which the Wâdy ed-Difleh flows, breaking through the lava terrace at Suweihiyah. From here onwards the wâdy is called Wâdy es-Feiyât, after this rock.

El-Ferj (D. 5).—A small Bedawîn winter village, with decaying huts and old building stones. The Tell el-Ferj, against which the village rests, is supposed to contain a large cavern, but it was not possible for me to investigate this statement.

Fîk (C. 7).—A large village of southern Jaulân, which till recently belonged to the Kada Tubarîya, but as the natives felt themselves thereby injured and in great part deserted it and settled in the environs, it was added to El-Kuneitrah, for which it is adapted by its situation. Fîk, however, is scarcely more flourishing since that time.

Of the 160 existing tolerably well-built stone houses, only about 90 are inhabited, containing scarcely 400 persons, the others are quickly going to ruin (Fig. 39). The place is raised on both sides

of the large Wâdy Fîk or Wâdy el-Kebîr, which commences here to fall over basalt terraces, but soon,

Fig. 39.
The Village of Fîk.

however, becomes broad and pleasing, and in the bottom of the valley is covered with olive groves. The view from Fîk down into the valley embraces first of all the deep-lying Kŭlât el-Husn, and then the lake, which spreads out deceptively as if it were lying in the immediate neighbourhood. This view is very beautiful, but not so open as from Kefr Hârib. Immediately below the first rock terraces of the village, the abundant spring, 'Ain Fîk, gushes forth.

The environs of Fîk are very fertile; the stoneless high plateau is excellently suited for corn cultivation, but still great tracts lie completely fallow in the immediate neighbourhood of the village. The inhabitants also carry on bee culture.

About 220 yards from the most southern house one comes upon a hill covered with ruins and olive trees, which is marked as a former site by its remains of old columns and building stones.

At the present day the inhabitants of Fîk bury their dead there, and with the object of honoring a Moslem tomb, called the place Jâmat el-'Umeri; perhaps a mosque stood there at one time. In the neighbourhood there is a second tomb, that of the Sheikh Faiyâd Abd el-Ghani: to each of these saints is entrusted a heap of firewood.

An old graveyard, with a longish hill called El-Mujjenneh, borders these places eastward. The Kusr el-'Ulliyeh lies in the south of the village, on the rising ground commanding the whole neighbourhood (*see* Fig. 39). It is a Moslem building, formerly destined for the reception of strangers, and, judging from the *enceinte* walls, was also fortified. At the time that Fîk, according to the testimony of the natives, formed the central point of the land, Kusr was the seat of Government, the Serai.

Several Ionic basalt and granite capitals of pillars and a quantity of basalt shafts of columns lie round

about ; old door lintels, with totally defaced Cufic inscriptions, are situated on the entrances.*

The village possesses an extraordinary number of oil mills, for large olive trees are to be found round this village, as well as on the slopes and in the wâdy. Besides old cisterns, there is a circular well, 25 feet deep, with an edge of hewn stones. In the courtyard of the summer Menzûl of Sheikh Dîab, besides remains of columns, the ornaments of Figs. 40 and 41

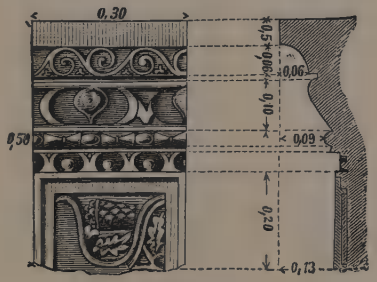


Fig. 40.

Fig. 41.
Ornamentation at el-Fîk.

are found, and in the wall there is a fragment of a

* I took an impression of this inscription, but unfortunately it was destroyed by an involuntary bath in crossing the Jordan. I hope to restore it later.

defaced Arabic inscription* in the year 741 of the Hegira.

. . . لوا الى الله تعالي الوحيد الدنيا محمد مقبل
. . . احد واربعين وسبع هدات

In the neighbourhood of the Menzûl the more ancient inscription of Fig. 42 may be observed.

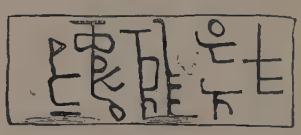


Fig. 42
Cufic Inscription.

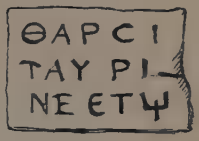


Fig. 43.
Greek Inscription.

Further distant, the Greek inscription of Fig. 43 lies on the street. I found the inscription of Fig. 44

Fig. 44.
Greek Inscription.

* I took an impression of this inscription, but unfortunately it was destroyed by an involuntary bath in crossing the Jordan. I hope to restore it later.

over the door of a dwelling-house. Mention must be made of the defaced Hebrew signs (Fig. 45), with the seven-branched candlestick, found on a small basalt column. Another form of this latter is presented on a door post, which has already been given in the Z. D. V. P., viii., p. 333. The constantly repeated ornaments of Figs. 46 and 47

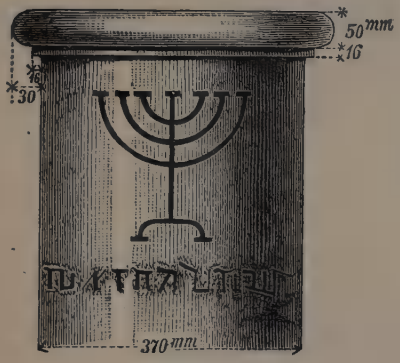


Fig. 45.
Column with seven-branched candlestick and Hebrew inscription.

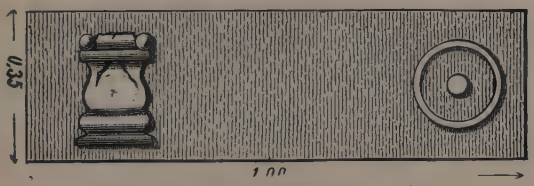


Fig 46. Ornamentation at Fîk.

Fig. 47. Ornamentation at Fîk.

are peculiar to Fîk; equally frequent are the signs, to me enigmatic, represented on Fig. 48.

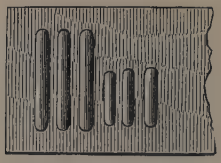


Fig. 48.

Crosses (Fig. 49) are also found on the lintels, and

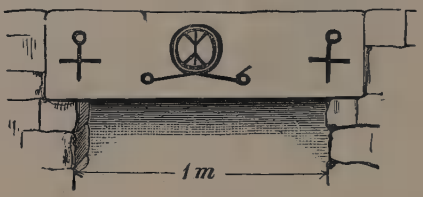


Fig. 49

the serpent ornamentations of Fig. 50 occur con-

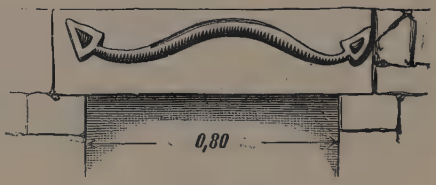


Fig. 50.

stantly ; also the decoration shown by Fig. 51, which

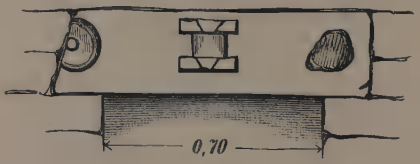


Fig. 51.
Ornamentations at Fîk.

is akin to Fig. 46. Although the figures rendered only represent a small part of the things still extant, they are quite enough to prove that Fîk was once an important as well as an ancient place. As places of rest for the caravans plying from the Haurân to western Palestine, they must once have contained a large market, which, however, has entirely disappeared. According to the statement of the intelligent Sheikh Diab, the inhabitants of ancient Fîk, in the middle of this century, built the following villages:— el-Yâkûsah, Dabbûseh, Jibîn, el-'Al, Skufîyeh (the youngest), Bîr ej-Jekûm, Kefr el-Mâ, Jamleh 'Abdîn, and in part Khisfîn. This statement was confirmed in the villages referred to. Even to-day the dwellers round ez-Zawîyah regard Fîk as their birth-place, and tell gladly of the size, wealth, and dominion of the village. It appears to me to have suffered principally through the attempt made by Ibrahim Pacha, of Egypt (1832), to subdue the still somewhat independent Jaulân and Haurân; and also from military levying and taxation as the former western frontier place of the Turkish possession. Therefore the inhabitants move onwards towards the interior of the land, which is only to be reached with great difficulty. Thus the Porte has completely succeeded in establishing what the Egyptian warrior formerly tried to do. The Arabic writers mention Fîk; they write it فيق and أفيق, which is unusual in the present

day, whilst the Bedawîn and inhabitants themselves pronounce it Fîj, which points more to a ڤ than a ڤ. One hears not unseldom also Fîka. Burckhardt calls it 'Feik' ('Ritter,' 352), and found a census of 200 families, consequently a much larger one than to-day. He also gives other interesting notes about the administration and maintenance of the place. Of the great Kastel, mentioned by Eusebius and Hieronymus ('Ritter,' 353), there is nothing more to be seen, unless the Kusr el-'Ulliyeh or the Jâm'at el-Umeri fills its place. I should certainly agree with Ritter and others that Fîk is the ancient Aphek of the Bible. (1 Kings xx. 26).

Burckhardt (according to Ritter) considered the neighbourhood of Fîk was the province of Hippene (Hippos); this assumption would be correct, because, according to all the old narratives, Hippene lay opposite to Tiberias, either on or near the lake. Josephus gives its distance from Tiberias as 30 stadium, 60 from Gadara, and 120 from Scythopolis. If this statement is correct—which, however, appears doubtful on comparison with other measures in Josephus, for example, in the description of Tabor (Jewish Wars, iv. 1–8), Hippos, could only, supposing Gadara corresponds to the present Umm Keis, be identical with Semakh or es-Samra. If, however, the statement which I find in Merrill's 'East of the Jordan'

is worthy of consideration, viz., that the Jerusalem Talmud and other Jewish writings pronounce Susitha identical with Hippos ; then the extensive although shapeless ruin Susîyeh, which I discovered between Kŭlât el-Husn and Fîk, in a plain, elevated half-way between both, must be regarded as the site of the old Hippos. I also acquired from the inhabitants of Kefr Hârib and el-'Al, a rare copper Hippos coin, which they alleged was found beneath the building rubbish of this place.

But this alone cannot give sufficient confirmation to the supposition that the places, Susîyeh and Fîk, situated between the two spots that have come to light, belonged to the province of Hippene.

Leaving the village, and turning westwards towards the narrow ridge of the Jebel Zâfarân, we discover on its northern margin, on the Wâdy Fik, the foundation stones of an ancient and most solidly constructed rampart, which extends from the village to the precipice before Susîyeh ; it probably belongs to that period in which Aphek was called a 'Castell.'

If one descends across this wall and down the first basalt terrace of the Wâdy Fîk, traces of a walled aqueduct may be seen which, in spite of the fact that it is already entirely in pieces and decayed, may be followed as far as the ruin Susîyeh, and somewhat further backward.

The inhabitants of Fîk assert that in winter time, when the ground is unploughed, it can be traced from Susîyeh downwards as far as the Dhahr el-Ahmâr of the Kŭlât el-Husn ; and upwards through the upper part of the Wâdy Fîk to the Wâdy Abûd, the Jebel Akta Sharîdeh, the Bîr ej-Jêkûm, still further all round the Zawîyeh ej-Jêkûm to el-Awânish, and on the southern margin of the Wâdy es-Semakh to et-Tu'enni, el-'Adêseh, as far as the Wâdy ed-Difleh, where it commences. I myself could not always follow the traces of this aqueduct with certainty ; but Kŭlât el-Husn being an isolated mountain and deficient in spring water, it is very probable that this fort was supplied with water from the abundant Wâdy es-Semakh by means of this canal. In any case, this canal was then as now subterranean, and concealed from the eye of the enemy.

El-Fizâra (D. 4).—A winter village, with about 12 inhabited huts at the foot of the small Tell el-Fizâra. It has some important remains of antiquity.

Fresh el-Lôz (B. 3).—A craggy wâdy, south of er-Rawîyeh, flowing into the Huleh marshes.

Furun (C. 3).—A ruin with some crumbled Bedawîn huts, in an unusually stony region at the western base of the Tell el-Haram. There are several scattered old building stones.

Ghadîr el-Bustan (E. 5).—A ruin on the Rukkâd.

The old weather-beaten building stones lie between green vegetation, where some springs rise on the river bed, and in winter form a little cataract on the Rukkâd. A little further up on the Nahr er-Rukkâd, the exactly similar ruin, Ghadîr ej-Jamûs (E. 5), lies; here also the remains are insignificant.

Ghadîr en-Nuhâs (C. 4).—A shapeless ruin on the similarly-named wâdy, which builds a waterfall here in winter. It conveys a great deal of rubble, but sinks only about 33 feet beneath the rocky lava plateau.

El-Ghadirîyeh (C. 4).—A small winter village, belonging to the Turkomans. It consists of twelve stone huts, of which six at most are inhabited, containing altogether thirty inhabitants. A good spring rushes along under splendid oak trees, between which some old masonry is to be found. The Turkomans are fond of encamping here. These places just mentioned mark the commencement of the Wâdy el-Ghadîrîyeh, which runs into the Wâdy el-Fakhûreh.

El-Ghôr (A. 8).—Only a small part of the Jordan depression concerns us, viz., that which bounds the Lake of Tiberias in the south and lies 700 feet below the level of the Mediterranean Sea.

After its outlet from the Lake the Valley of the Jordan bears, besides the general name of esh-Sheriât (a watering-place), the particular name Wâdy Seisabân, which it retains in the neighbouring district

of el-Ghôr. It is $3\frac{3}{4}$ miles broad at the Lake. In the west the mountains press close on the Jordan, whilst in the east a fine and most fruitful plain stretches, which is watered by the Yarmûk; only the heat in the valley is so intolerable that it is impossible, even for the ordinary fellahin of Western Palestine to settle there, and much more so for the Europeans. It has often been proposed to fetch negroes from the Soudan and let them cultivate the ground, which is most productive, and especially suitable for tropical plant growths, as rice, cotton, &c., because these products yield more profit than the sort of corn, wheat, and barley sown there to-day. The Dom-bush (*see* p. 130) is a native of the Ghôr. The inhabitants of the Ghôr belong to the Bedawîn tribe of the Beni Sakhr; it is occupied by several branches, who have cultivated it and made it unsafe.

Hafar (C. 3).—A winter village, consisting of eight wretched huts on a hill, surrounded by two wâdies, the larger of which, bearing the same name, forms the beginning of the Wâdy el-Hamd. Several unhewn old building stones lie round about.

Hâmi Kursu (E.4).—One of the highest (3,930 feet) and most moderate of the volcanoes. A powerful lava stream flows northward (Tellul Surramân) from the tolerably destructive crater, opening eastward, and extends down before el-Kuneitrah. The summit, Hami Kursu, forms a small stumpy peak, whilst the

slopes, es-Shaâf, fall in terraces, and are cultivated by the Circassians. A narrow ridge, formerly a crater wall, runs from the peak to the south-east, and ends as a cultivated and very fertile plateau, called Râs Shaâf. The mountain can be ascended on every side without difficulty; it is overgrown by luxuriant oak thicket, the remains of an earlier great forest. According to the Bedawîn, the summit owes its designation, Hami Kursu, "Protector of the Crown," to the impenetrable oak growth which the Circassians have for the most part felled.*

In the east and west, as also in the north, rounded hills lie round the chief mountain.

El-Hammeh (B.C. 8).—The collective name for the hot springs on the Yarmûk, which rise in the valley of this latter in a district surrounded by it, towards the southern part of its semi-circular course, and bounded on the north by steep rock-walls.

It is under the Kada of the 'Ajlûn, and is valued by the Bedawîn as an asylum which shelters them from the avenger of blood. If one rides from Tiberias over the rocky road to el-Hammeh, one perceives the light-blue pool and the smoking

* Compare Wetzstein. 'Das Batänaische Giebelgebirge,' Leipsig, 1884, p. 14; also in 'Zeitschrift cf. Rirchl, Wissensch.,' 1884, 113. W. writes Hami-Kursuh, and explains it חֹדֵמֶה קֻדְצוֹ "he who protects bread," *i.e.*, who admits no guest. "Hami-Kursu" receives its name from its impenetrable wood.

springs from some distance. As soon as one enters the valley one is surrounded by currents of air smelling strongly of sulphur. The road leads through the Rôd el-Bâneh, a waterless wâdy, down to the Birket ej-Jarab. These hot springs bubble forth in a natural basin, have a temperature of 104·5° Fahr., and together have the important outflow of more than 220 gallons a second. This is soon collected into a canal, turns a most primitively-constructed flour mill, and then flows into the Yarmûk. Another arm, which carries away the surplus, feeds a large basin close to the river; it is 295 feet long, 49 broad, and 8 feet deep; and surrounded by thick tree and cane growths, invites one to a pleasant bath. Then, also, the high temperature of the water has, by this time, considerably cooled. Quite close to the Birket ej-Jarab, scarcely 6½ feet distant from it, a cold spring, 77° Fahr., rises; it is called 'Ain Bûlus and flows into the basin filled with hot water—certainly as peculiar a phenomenon as the stream of hot mineral waters which drives the mill.

The road leads further south, past some palm trees and remains of ruins, to the principal spring, called Hammet Selîm, or Birket el-Habel, or Hammet esh-Sheikh.

It lies 577 feet below the level of the Mediterranean Sea, has a temperature of 120° Fahr., and an outflow of 385 gallons a second. At one time a Roman bath

was extended across this spring, as is quite evident from the architectural remains of a large and a small building. The spring bubbles forth in a narrow enclosed basin, deposits, like all the others, a whitish-yellow sulphurous precipitate, which in certain places has hardened into rock-like substances, and conveys its water through several natural-formed basins, which collect and gradually cool it, to the river. Near this spring rises a Moslem burial-place, Wely Selim, to honour whose saints convalescents and those seeking help plant on the Roman buildings coloured cloths tied to sticks. There also is the principal scene of action of the bathers. The Bedawîn, whose skin is already hardened to leather by the tropical sun of the Ghôr, let themselves down into the smoking, bubbling flood with perfect contentment; on the other hand, the Arab from the town ventures in first cautiously with the foot or hand, whilst the European prefers to seek out the cooler basin. A little east of the Hammet Selîm lies a small uncovered pool, the Birket or Hammet er-Rîh, which has a temperature of only 93°·2, whilst it makes a similar flow to that of the Hammet Selîm, with whose water it soon unites.

Besides these three principal springs, with their high temperature, nature has also presented this place with good drinking water, furnished by the spring 'Ain es-Sakhneh or 'Ain Sa'âd el-Fâr. This

begins in the north-east corner of the plain as a clear abundant cold stream, with a flow of 341 gallons a second. Fig trees, oleanders, and raspberries grow in confused masses about the place close below the rock walls which bound the el-Hammeh on the north. The stream moves southward through a thicket of swamp plants, turns a mill, and empties itself into the river close to the Birket er-Rîh. A small sidearm is diverted from the spring westward for irrigating and filling the troughs for the cattle. The temperature of this spring is about the same as that of the 'Ain Bûlus, 77° Fahr. The whole district of el-Hammeh is covered with luxuriant oleanders and Dom underwood, it abounds in water, and is consequently somewhat unhealthy, the eastern part being even swampy, and overgrown with cane jungles. These springs rise on a flat land of about 1,600 yards in length, and on an average 550 yards in breadth; consequently, on a district of about 180 acres it was sufficiently large to allow of the erection of a bath arrangement with all conveniences, as well as beautifully laid-out gardens. The ground is at present the property of a citizen of 'Akka, but the springs belong to the Government.

The western part of the district of el-Hammeh is rich in ruins. Near the Birket ej-Jarab an extended hill rises, on which the remains of a wall are to be found. Probably a temple or a castle stood here.

Between this hill and the remains of the Roman bath there is a strong vaulted building; the floor is thickly

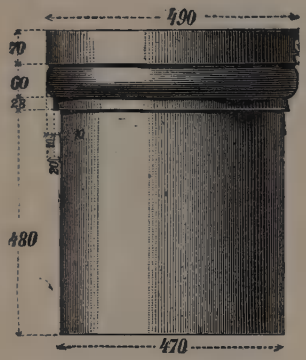


Fig. 52.—Column at el-Hammeh.

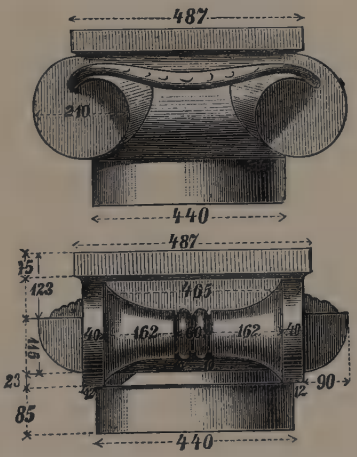


Fig. 53.—Capital at el-Hammeh.

studded with fragments of columns, capitals, bases, and shafts, and hewn and unhewn building stones. But

it is impossible to distinguish and draw up any plan of this confused mass. The numerous annual bathing visitors build huts out of the ruins, or drag the fragments from their places, or dig under the ruins for treasure; the disorder is consequently always increasing. The upper end of a column and Ionic capital belonging to these ruins are represented by Figs. 52 and 53; they are well preserved. The ruins of a Roman theatre (Fig. 54) lie north of Birketer-Rîh.

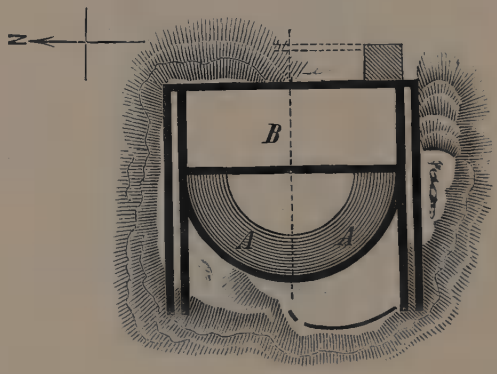


Fig. 54.

Roman Theatre.

The twelve stone tiers of seats (*see* Plan, A) ascend in an amphitheatre to a height of 19 feet, without a single corridor traversing them. The seats (Fig. 55) are 18 inches high and 30½ inches broad, and are consequently very comfortable. The uppermost ledge is formed by a moulding divided into several flat and narrow friezes (Fig. 56). The diameter of the semi-

circular tiers of seats is only 85½ feet; the stage,

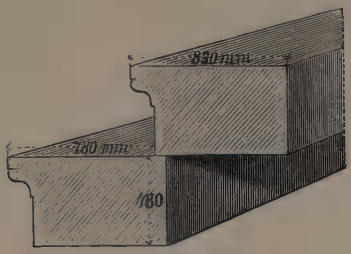


Fig. 55.
Section of Seat.

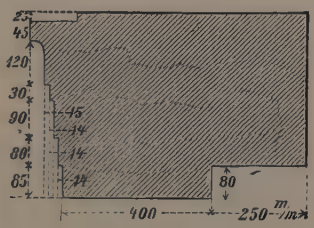


Fig. 56.
Section of Moulding.

somewhat raised by means of the moulding (Figs. 57 and 58), has an equal length and breadth of 33 feet;

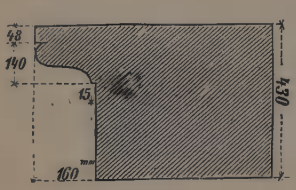


Fig. 57.

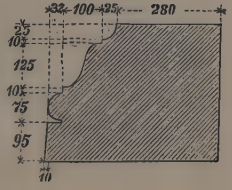


Fig. 58.

Sections of Mouldings.

walls 3 feet 3 inches thick, built double on the north and south sides, surround the whole. Some dressing and

wardrobe rooms are still attached to the stage place, but they are almost all levelled to the ground. Although the theatre is so well preserved that a plan can be drawn up, the influence of earthquakes is unmistakable, especially on the horizontally displaced rows of seats. On the convex side of the theatre, in the west, a hill, 26 feet high, rises, whose uppermost small plateau spurs show an enclosure wall. The rock walls which border the district of el-Hammeh in the north are from 80 to 90 feet high, and fall perpendicularly. A beautiful plain, called es-Sateh, spreads across down to the foot of the mountain. In these steep walls, which, according to Dr. Noetling, belong to a lava stream broken through by the Yarmûk, several caves open below immediately on the plain of el-Hammeh; they are not artificial, but are formed naturally, and are all of insignificant size.

Excavations undertaken there proved that the upper layer of the ground consisted chiefly of the dung of the animals that take shelter in these caves, and that 35 inches beneath the surface a striking number of remains of bones—of animals first, then also of men—came to light; they were found to be very much decayed. Immediately over the layer containing these remains of bones a fine rubbish, with particles of charcoal, lies. It appears, therefore, that these caves once served—in grey antiquity, indeed—as habitations for human creatures.

The caves on the western end of the district of el-Hammeh are of a different kind. Here the lava stream rests on a strong foundation of soft limestone. To the north, above the sharp bend of the river towards the west, distinct traces of human action—namely, masonry—may be observed on the steep caverns, 65 feet high, with walls of lime (Fig 59). As

Fig. 59.
Caves at el-Hammeh.

they are situated from 35 to 38 feet above the rubbish slope of the mountain, they were inaccessible to us. They are already very much defaced. The inner chamber appears to have a tolerable extent. Pro-

bably at one time anchorites occupied them, to which the approach may at that time have been more convenient than at present. To-day an examination is only possible if, with the help of a rope ladder, one glides down the channel of the river Rôd el-Bâneh, running close by the caves. Other square apertures are to be seen on the left coast of the river down stream, which, however, are likewise inaccessible without a rope ladder.

El-Hammeh corresponds with the bath Amatha, or the hot springs of Gadara, principally frequented in the time of the Romans. From the hot plain of the springs the bathers have betaken themselves in crowds to the high lying Gadara, or Umm Keis, scarcely half-an-hour's distance, where they can rejoice in the cool air and lovely view. But even to-day, hundreds of natives from all parts of the land hasten to el-Hammeh. Barren Arabian women seek aid in the warm flood, and numerous examples are related of the desired effect of the bath. It is for this reason that one sees especially young women, accompanied by their husbands or relatives; they erect huts of willows and straw, or brushwood; friendly families live close together, whilst solitary strangers seek to protect themselves from the rays of the sun behind the ruins. During the day most of them rest, but as soon as it begins to get dark an animation and deafening noise sets in. To the sound of trumpet

and fife, groups of women, watched by their husbands, draw nigh to the baths and divert themselves in the lukewarm pools. They return with the same noise; and then feasting, laughing, dancing, story-telling goes on in the tent till the early morning, when another bath is taken, and then they retire to rest. And so the visitors to the baths go on for a fortnight or three weeks, whilst the bathing time lasts altogether from April to July. New comers salute those who are there, and are welcomed by them with musket-shots, through which it not unseldom happens that accidents occur, for the sojourners, who are often half mad with excitement, as a rule, fire their muskets close over the heads of those present, and thus frequently wound one or another, as I myself have had opportunities of observing. If the one who is struck belongs to the resident Bedawîn, threats are uttered, and stormy events seem likely to come to the fore. Only by a heavy offering of gold from the guilty party to the offended can a bloodless deed be expiated. If, however, blood has been shed the originators hurry off, for the scene of their bloody deed is no longer a sojourn for them. Although every year 100 to 200 tents arrive in el-Hammeh, no conveniences are provided; they leave everything to mother nature. It would, however, without any doubt, be not only remunerative but also a particularly wholesome undertaking, if the sojourn at these springs were made in a more

habitable, pleasant, and comfortable manner. The contents of the springs has been, according to testimony, likened to the Carlsbad water, and already in antiquity, as has been observed by Ritter, 1053, compared with that of Baiae.

Harf (B. 7).—A fair number of scattered old building stones on the Mukatt ej-Jamusîyeh, above Susîyeh.

Hâwa (B. 5).—A small ruin with two corn magazines, better built of stone, belonging to the Bedawîn, in the woody district, on the wâdy of the same name, which upwards is called Wâdy ed-Dôra, and lower down Wâdy Jerâba and Wâdy es-Saffah.

El-Hâwiyân (B. 8).—A narrow rock gate near ed-Duêr, consisting of two angles of the rock lying opposite each other, which embank into the Yarmûk, the east end of the 'Alâlî ed-Duêr (*see* p. 131).

Hêtal (D. 7).—A village on the slopes of a wâdy of the same name, which is somewhat better constructed than the neighbouring Jîbîn, and contains forty stone and clay huts, with about 100 inhabitants. As regards ancient remains, only fragments of columns and hewn stones are to be found. The country and the wâdy are abundantly supplied with water. East of the village on the road is the Bîr et-Trûh, with a pool and oleander bushes. A very primitive tomb has been raised to the wood saint, Sheikh Muhammed; its Mujjenneh protects a quantity of fuel.

El-Hûtîyeh (C. 7).—Four Bedawîn winter huts

above the Wâdy es-Semakh to the south. There is good pasture ground, and some old building stones.

Inkhêli (D. 5).—According to a few trustworthy Bedawîn, also called Umm Khêli, is a winter village, consisting of nine huts on the margin of a wâdy of the same name, below el-'Amudîyeh. The remains of ruins are insignificant.

Jamleh (E. 7).—A village of the ez-Zâwîyeh esh-Shurkîyeh, comprising thirty-six dwellings, built of stone and earth, and 160 inhabitants. The village is poor, and has only a little arable land, because the country is stony. But it possesses a few fig-gardens, and some vegetable cultivation. A sufficient quantity of water is yielded by the spring Ain Hamâta, in the south of the village, and by another one in the north. Old remains are scarce, and it is only in the south that we come upon large foundations, with immense blocks of basalt, apparently primeval, as, indeed, everything in Jamleh appears. The view over the ravine of the upper Rukkâd is very beautiful.

Jebâb en Nânâ (C. 3).—A small volcanic hill, overgrown with underwood, east of Skêk.

Jebâta el-Khashab (D. 2).—A large Druse village of Kada Wâdy el-'Ajam.

Jebel 'Ain en-Nîmr (B. 8).—A part of the edge of the plateau south of Kefr Hârib.

Jebel 'Ain es-Sakhneh (B. 7).—A low isolated hill on the plain, lying on the east coast of the Lake of Tiberias.

Jebel Aktâ Sharîdeh (C. 7).—The slopes of the plateau, south of Skufîyeh.

Jebel Jûâ (C. 4).—A small pointed hill with a few building remains, near Nuârân.

Jebel Kurein Jerâdeh (B. 7).—The summit of this slope, overlooking the Lake of Tiberias, is 450 feet above the Mediterranean Sea, and 1,132 feet above the level of the Lake, with deeply furrowed valleys. It consists for the most part of limestone (*see* Fig. 20).

Jebel Mokâdlah (B. 7).—A semicircular hill, overlooking the Lake of Tiberias, much broken up by eruptive-rent valleys, probably part of a gliding hill. The warm springs, el-Hammeh (*see* p. 149), spring from its base on the shore.

Jebel Seil el-Aswad (B. 7).—A low rounded hill at the foot of the Kŭlât el-Husn.

Jebel esh-Shârarât (B. 8).—The south-western slope of the Jaulân, between el-Kuweîyir and Khan el-'Akabeh.

Jebel Zâfarân (C. 7).—The narrow mountain ridge between Wâdy Fîk and Wâdy Masâud. On its northern rim there are traces of an old fort wall, extending as far as Fîk.

Ej-Jedeiyeh (C. 6).—A ruin, with some old building stones, close to the Wâdy ed-Difleh.

Ej-Jelêbîne (B. 4), written by some el-Klebine. Although the latter form sounds more familiar, I must, after inquiries, recommend the first as being more

correct. The place is nearly forgotten, and a desert ruin on the Wâdy Dabûra, near the Lake of Huleh. It has no visible remains of importance, but has the appearance of great antiquity.

Jeraba (B. 5).—A Bedawîn winter village, with insignificant ruins, in the woody country north of the Batîhah. The name recalls the Gabara of Josephus.*

Jibîn (D. 7).—A village on the fall of the Wâdy Hetal, which comprises thirty-eight huts of basalt and earth, with ninety-five inhabitants, or twenty-one families, according to the testimony of the Sheikh. West of the village we find the paltry sepulchre of the wood saint, Neby Yûnis, with a small court. North of the miserable village lie the ruins of Jâmât el-'Umeri, a mosque from the time of 'Umeri, at which time the village must have arisen. Besides an ordinary base in the Hâurân style (Fig. 60). there are remains of

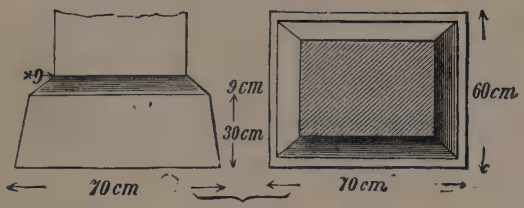


Fig. 60.

Bases of Columns at Jibîn.

* The Gabara of Josephus (Jewish Wars III. vii. 1. ; Vita 10, 25, 45, 47) lay 40 stadia away from Jotapata ; it cannot therefore be looked for east of the Jordan. Comp. Reland, 'Palastina,' Guérin, Galilee, 771 ; H. Hildersheim, 'Beitrage zur Geographie Palastina's' (1886), 15, 43.

Koran inscriptions. The outer court of the mosque is overlaid with basalt slabs. The door lintel on the Menzûl of the Sheikh bears likewise a part of the Koran inscription removed here from the mosque ; it is quite defaced, and only the words لا ... الله ... الا ..... are recognisable. Besides olive-presses and quarried stones, there lie the beautiful Attic base of a corner pillar, and a portion of a less well executed Doric capital, with beading on the base. In the village I found an Ionian capital (Fig. 61) and some basaltic

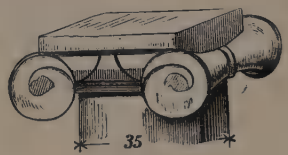


Fig. 61.
Ionic Capital.

shafts of columns, 5 feet long and 14 inches in diameter. The building stones throughout are basalt The village has a superabundance of good drinking water.

The Rân Jîbîn (*see* under 'Ain el-Melekeh) is built over the spring, and flows into a sarcophagus.

In the west of the village I discovered several subterranean remains, which are found in such numbers in the Haurân (Fig. 62). These measured only 8 feet square and 6½ feet high. They are walled up, and have a good dressing of ¾ to 1 inch in thickness at the bottom. The covering, which is on a level with

the upper surface of the earth, consists of basalt slabs; the layer of wood bushes and clay which lie over it is

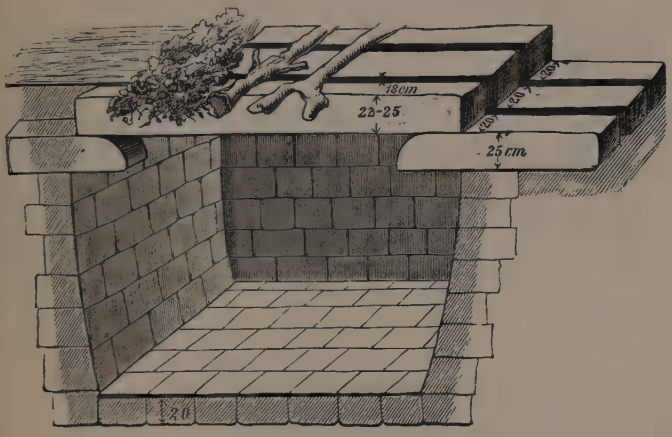


Fig. 62.
Underground Chamber.

doubtless a later addition. Whilst they are at present used as corn magazines, they probably served formerly as cisterns, hardly as dwelling-rooms, as a staircase and the necessary openings are wanting. The inhabitants certainly assured me that there were some such with a small flight of steps in the north; but these, however, are buried under ground.

Jisr er-Rukkâd (E. 6).—Two stone bridges lead across the Rukkâd; an upper one near Sueiseh, which is therefore called Jisr Sueiseh; and a lower one, east of Khisfin, called Jisr er-Rukkâd. The first is small, and consists of eight large unequal pointed arches, of

which the three centre measure about 16 feet, the three on the right side about 15 feet, and the two on

Fig. 63.
Jisr er-Rukkâd.

the left coast side 15½ feet and 10 feet. The height between the vertex of the arches and the water surface amounts to about 12½ feet in summer. The bridge is 15 feet broad, and 250 feet long, from one extremity to the other. The arches are united by piers 8 feet thick, which have a cuneiform pier-head up the stream, in order to keep back the rush of boulders. The pier spaces on both coasts are very broad. Unfortunately, the bridge is in decay; and although the quarried basalt stone is built up with good white mortar, both ends have already fallen in, so that the approach by a beast of burden is impossible. In winter time only, when the stream has swollen to an enormous size, they use the footpath, whilst the caravans have to wait for better weather.

The carriage road of the bridge is entirely horizontally paved with wide basalt slabs. This paving, several miles, is continued on both sides in a Roman road, still well preserved in part, and 9½ feet broad. I conjecture, therefore, that the bridge is also of Roman origin, especially as its design differs from that of the Arabian time, inasmuch as the carriage road does not incline from the centre towards each side, but has a horizontal surface.

Joramâyeh (C. 6).—A ruin near the border of the wâdy of the same name. Till recently it was a winter village of the 'Arab ed-Diâb; but the huts have fallen to pieces, and it is now deserted. The ruin is tolerably extensive; the building stones are mostly unhewn and long. One comes upon the remains of subterranean buildings, small rooms with basaltic roofs, like in Jîbîn, which have been transformed into graves by the Bedawîn, and closed up with stone slabs. South of the ruin we find some better modern masonry in a large rectangular room. In the Arabic age, Joramâyeh was still a village of moderate size. At the bottom of the wâdy, below the ruin, some palms flourish; also, trees grow along the whole length of the wâdy. Wâdy Joramâyeh commences at the western foot of the Tell ell-Fâras, near the 'Ayûn el-Fahm. At first, the brook sinks only suddenly below the surface, then at Tell Bâzûk it suddenly plunges over high rock walls, and forms a

narrow ravine, which widens below the ruins of el-Kuneitrah; it is marked throughout by some green growth. The Wâdy Tell Bâzûk runs in from the north (*see* p. 129), being only separated from the chief valley during the last stretch of its course by a narrow ridge. Both convey their water to the Batîhah, where it soon gets absorbed. The ravine grows more pleasant, and in the plain itself vanishes in a flat indent of the ground, marking out the line of the stream of water, which in winter is very large.

Jort el-Akrâ (B. 5).—Close to the east, near a bare part of an otherwise woody country, with a single withered tree and some traces of masonry.

Jort el-Hâkîm (D. 4).—A piece of lowland, with a spring which in winter turns a mill. It is at the foot of Dhahret Jôrt el-Hâkîm, the rocky eruptive ridge on the eastern foot of the Tell Abu Yûsef, which is obviously either a lateral eruption of this crater or else an old crater wall.

Jort el-Hâwa (D. 3).—The country between el-Kuneitrah and el-Mansurah. Its name, 'Lowland of the Wind,' is especially justified in winter, when through the gap between the sheltering Tell Abu en-Nedâ and the crater west of el-Mansurah, a cutting north-west wind sweeps over the plain, causing a heavy snowfall. Altogether, this is the most windy tract of country in northern Jaulân. On the other hand, Jôrt el-Hâwa is a small strip of lowland, be-

tween a strata of lava, near the Wâdy el-Gharâbeh, above the western slopes of Jaulân.

Ej-Jueîzeh (D. 4).—A large Circassian village of seventy houses, with sixty families, and 300 inhabitants collectively. Of antique remains little are to be seen. Well kept practicable roads lead to the thriving village, which lies in the best pasture country (*see* 'Ain el-Belât for a second ej-Jueîzeh, C. 3).

Ej-Jummeizeh (B. 6).—A sycamore (mulberry-tree) and a Moslem tomb of the Sheikh Rajâl in the eastern Batîhah.

The tree is of great age and splendid growth. Some scattered ruins are to be found in the neighbourhood.

El-Kahwâneh (B. 8).—A district of the Ghôr immediately south of the lake between the Jordan and Tellul es-S'âlîb.

Kanef (C. 6).—A Bedawîn winter village east of the Batîhah, and a magazine of Muhammed S'âid Pasha of Damascus, occupied by ten to fifteen inhabitants, and is conspicuous from its high position. There are some old building stones.

Karahta (C. 3).—A Bedawîn winter village, whose huts are permanently inhabited by from twenty to thirty persons belonging to the 'Arab el-Hawâj. There are some tolerably old building stones. In the south-west there is the Birket Karahta, a dirty pond.

El-Kaseibeh (C. 6).—A Bedawîn winter village of

four huts, with old building stones. It is here that the Wâdy el-Kaseibeh commences, which further down is called Wâdy Deir 'Azîz, and Wâdy esh Shukeiyif.

Kefr Hârib (B. 7).—A village consisting of 70 stone and mud huts with 40 families, or about 200 persons. The inhabitants are affable and hospitable, not like the people of Fîk, who are peevish. They have a Khan in the village, the resting-place of the caravans, instead of in Fîk. The western side of the village, like Fîk, crowns the basalt precipice of the lava plateau in a semicircle, and, as has been already mentioned, affords a matchless view across the country and Lake of Tiberias. Several good and abundant springs break out beneath the first precipice ; they are set in old masonry. The village is not yet old, but is, nevertheless, in a flourishing condition, carrying on an excellent bee industry, and cultivating the stoneless and extraordinarily fruitful plateau stretching south down to the Yarmûk. It is, however, subject to quit rents from a much-esteemed Damascene. In the south the simple monument of Sheikh Muhammed el-'Ajami stands, surrounded by high wood piles and farm implements, and overshadowed by clusters of magnificent trees. In the village itself there are few antiquities, although the old building stones point to large buildings. On the Mahall ej-Jâma'a the smooth ground and enclosure walls of a mosque, with a defaced Arabic inscription,

are to be seen; of this latter I was unable to distinguish anything but عسى الفريز

On a door lintel we came across this not infrequent ornament of Fig. 64, and in the yard of a house the Greek inscription of Fig. 65.

Fig. 64.

Ornamented Lintel.

Fig. 65.

Greek Inscription.

The old site south of the present village is marked out by a number of scattered stones, mostly unhewn, with foundations of the Arabic age. Here and again one discovers quadrangular subterranean rooms, very carefully built of hewn stones without mortar; they have a base area of $6\frac{1}{2}$ by 5 feet, and a depth of 5 feet, and were probably formerly sepulchres; they are now turned into grain chambers. One of the basalt coverings of these appears to me to have been

adopted later than the remains lying round. After the old site is passed, we reach broad traces of a wall which can be followed along the western margin of the plateau as far as the Sultaneh, stretching down to Khan el-'Akabeh. Probably they are the remains of a Roman road, which was bounded by a wall.

Kefr el-Mâ (D. 7).—A large flourishing village on the Rukkâd with 80 buildings, mostly spacious, of stone. According to the testimony of the Sheikh

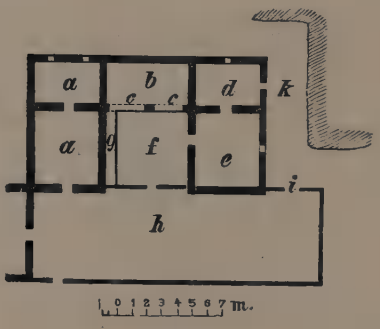


Fig. 66.

Plan of the Sheikh's house in Kefr el-Mâ.

a Family dwelling-place.
b Open court.
c Arch.
d Winter menzul.
e Winter stable.
f Summer menzul.
g Divan.
h Summer yard for the horses.
i Principal door.
k Street.

Muhammed el-Ahsen, who at the present time represents the interests of the ez-Zawîyeh el-Ghurbîyeh in the Medjlis of el-Kuneitrah, and who is consequently a highly esteemed personage, it is inhabited by 800 persons. The Sheikh's house in the westerly part of the village is roomy and well-built. The Menzûl, which he built, is a two-winged building, with a large court and open hall adjoining. In the latter prayers are said during the summer (Fig. 66). The surroundings are fertile; the Rukkâd slopes rich in water. About 82 feet below the village, towards the Rukkâd, the abundant spring, 'Ain Kefr el-Ma, gushes from a fissure in the rock. A rounded arch (Fig. 67) is built over it, above which enormous

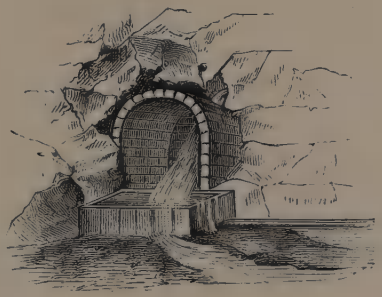


Fig. 67.

'Ain Kefr el-Mâ.

basalt rocks tower. Its water falls into a stone setting, and is conveyed out of it through an old

dyke-channel of black clay to a choked-up ruin lying near el-Hammeh (bath to the right in Fig. 67). Here it irrigates some vegetable gardens.

The spring water is remarkably clear and wholesome. In the village itself, the inhabitants of which practise bee cultivation, there are many ruins to be found, besides large hewn basalt squares, Corinthian capitals with acanthus leaf, shafts of columns, and an entire arched niche with radial shell-like decorations and beading. The real ancient site extends over a wide field, covered with building stones, west of the present village. In 1 Macc. v. 26, besides the Casphor Khisfin, already mentioned, we are also told of Alema. Now, as the natives of that village write the name the same way, laying the accent on the short article before the *l* (Kefrêlma), whilst only the officials write it Kefr el-Mâ, we are driven to the supposition as to whether a relic of this 'Alema' does not remain in the present name. According to the ordinary form used by the officials, the name signifies 'water village,' obviously with reference to the richly-watered declivity.

During my stay in Kefr el-Mâ, a fellah quietly told me that in the yard of his neighbour a Sanam (idol) had been discovered and again buried. After lengthy parleyings we came to an agreement to disinter it by a moonlight night, which we were successful in doing, to my delight. Fig. 68 represents the statue,

38 inches high, cut in relief out of basalt stone; it is a male figure, whose right hand holds a rod up which

Fig. 68.
Statue in Basalt at Kafr el-Mâ.

a snake is winding. The clothing consists of a scaly shirt of mail which reaches to the knee, and covering the chest. The head is swathed round with a threefold kind of rope plait. The left arm bears a broad bangle, and the hand a kind of feathered arrow. The whole figure stands under a projecting cornice of basalt stone, and is 3 feet in height, and 19½ inches in breadth, and about 34 inches thick. It is still found *in situ*, as is proved by the enclosing foundations; but without further excavation

it is not possible to acquire a plan of the ancient building.

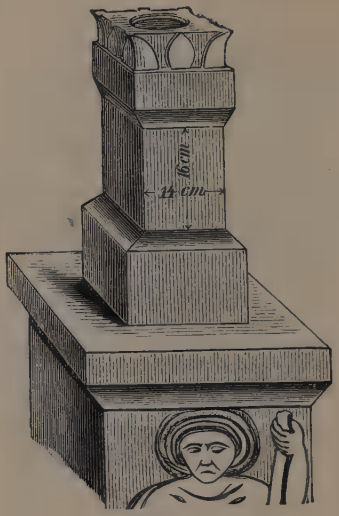


Fig. 69.
Altar at Kefr el-Mâ.

On this block, adorned with the statue, a small altar stood, which is now to be found in the Menzûl of the Sheikh (Fig. 69). It is likewise of basalt, 2 feet high, and having a base 9 inches square. In the centre of its upper surface there is a round cavity 4 inches in diameter. Its ornamentation, like that of the statue, is tolerably stout and solid, the work being carefully executed, and apparently very ancient. I will not venture any suggestion as to the origin of this statue.

From all the remains found in Kefr el-Mâ and its

neighbourhood, it appears to me certain that the ancient place was once important and rich in architectural buildings.

Kefr Naphâkh (C. 4).—An old Bedawîn village, which has been recently rebuilt by the Turkomans, containing a large well-built corn magazine; old building stones, mostly unhewn and long, appear in large numbers, and, as in the neighbouring Bêdarûs, are heaped up in regular hills, so that one is only able to discover old square foundations with labour.

They are all, however, greatly weather-worn; the decoration of a large capital can scarcely be any longer perceived, whilst some shafts of columns are also very much injured. In the south of the ruins the Turkomen have hollowed out a well-shaped cavity some yards square, which is bricked in, and about 25 feet deep.

Very interesting are the sliding tombs lying close to the margin of the wâdy (Figs. 70 and 71). They consist of three rows of either thirteen or eleven tombs, the inner of which measures $6\frac{1}{2}$ feet in length, 23 inches in height and breadth. They are separated from one another by basalt slabs, and covered in the same way.

Each row has two layers, one upon another, but all the graves lie beneath the surface of the ground. The rows are divided off by passages 6 feet wide, and shut in from above by a stratum of rock. The

main direction of the passages is from north to south. Towards the south the rocky Wâdy Kefr Naphâkh

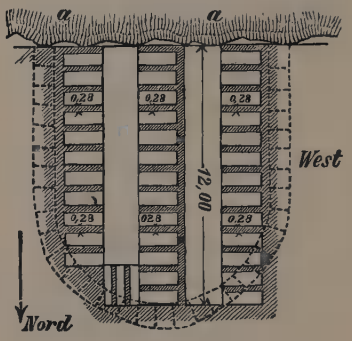


Fig. 70.
Plan of Sliding Tombs.

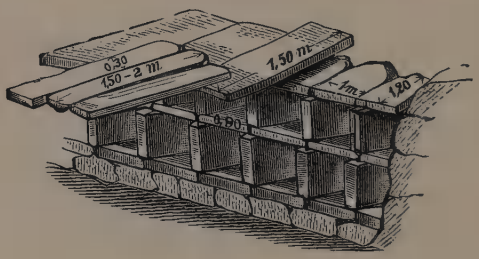


Fig. 71.
Sketch of Sliding Tombs.

(Fig. 70, *a*), which makes a steep fall of some yards, bounds the burying-place. The western portion of the tombs is certainly fallen in, but, all the same, I believe I have correctly rendered the plan of the whole in Fig. 70. Not a trace of sarcophagi is to be seen.

Crossing the wâdy we arrive at the Via Maris, and

then to a second ruined place lying opposite Kefr Naphâkh, with old walls and many building stones. The region is very stony, but in spite of this, the earlier place was of importance. Burckhardt, in 'Ritter,' 168, speaks of a large pool with a circumference of 200 paces, with traces of a stone aqueduct, which he called Birket Nefah or Tefah, and which he mistook to be the Lake of Phiala.

The place, according to his description, is identical with Kefr Naphâkh, but the tank is no longer extant. Perhaps the long wall running along the southern margin of the wâdy has been a canal.

Kersa (B. 7).—A ruin on the shore of the Sea of Tiberias, lying close to the discharge of the Wâdy es-Semakh. The remains date from two periods; a more ancient one, from which only scattered building stones and foundations are still extant, and a more recent one, probably Roman, whose long walls, 3 feet thick, are built of small stones joined with white mortar similar to those found in Tiberias (*see* note to Kusr el-Kelbeh). They enclose square rooms.

A round tower, built above the ruin on the lower ledges of the slopes, dates from the same period. According to the statements of the Bedawîn, it bears the name Kersa, or Kursu, because it is not unlike a stool, whilst the already-mentioned walls on the lake are called es-Sûr.

Nevertheless, what is usually understood by Kersa is

the ruin generally, which is distinguished by a splendid Butmeh. The ruins are extended, and it is thought that traces of aqueducts can be distinguished. The lime rocks of the neighbourhood have several large natural cavities, especially over the lower ruin on the slope. Steep precipices at a slight distance from the Lake, like Mokaádlah, and at el-'Arêt ridge of the Wâdy es-Semakh, àre numerous.

Up to now the site has been identified with the Gergesa * (Matt. viii., 28).

Khalas (B. 7).—Some remains of ruins on one of the mountain ridges, lying opposite the Kŭlàt el-Husn. The slopes down to the foot of el-Kŭlàh exhibit several grave holes cut in the hewn rocks, the passages of which are, however, mostly choked up. I must postpone for the present a closer investigation of this place.

Khân el-'Akabeh (B. 8).—A ruined building of the Moslem period. It was originally an inn for caravans, and is situated on the principal road leading from the Jordan to Fîk, Khisfîn, and the Haurân. The Khân has a quadrangular foundation. A yard for the beasts, measuring 56 feet square, is enclosed by a vaulted court 16 feet wide, for the reception

* The name Gergesa has been introduced into Biblical text from the reading (*νεσηνῶν*) Gergasenes in the Gospel of St. Matthew, which is based on no good authority, but has obtained currency through the influence of Origen. It would be well to strike it out. Mark v. 1, Luke viii. 26, &c., refer to Gadara.

of persons. The walls (basaltic) are occasionally 6½ feet thick. In the east a pointed style of gate, upon which are the remains of a beam arrangement, leads into the courtyard (Fig. 72). The other pas-

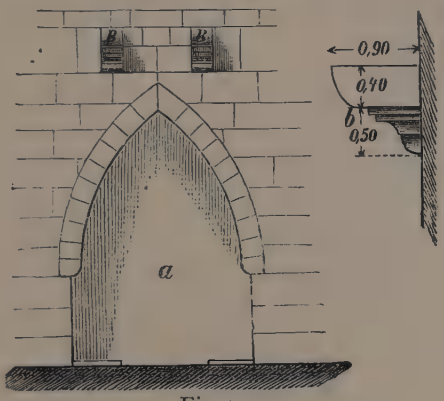


Fig. 72.
Door in Khân el-'Akabeh.
a, front view; *b*, Section of B.

sages, probably one on each side, are destroyed. Close to the principal gate in the east there is an Arabic inscription chiselled in white limestone, but it is greatly decomposed. An open flight of stone steps leads from the courtyard to the terrace, which, however, at that time formed a part of the second storey. The eastern gate, which is 7 feet and 10½ feet high, is well built of hewn stones. Judging from the pivot holes, the bar of the gate must have been a very strong one; 87 yards north of Khan we find a small square ruin, no doubt the former watch tower; 163

yards east is the magnificent spring, 'Ain el-Khân or 'Ain el-'Akabeh, shaded by splendid trees; it flows south from Khân down towards Tawâfîk. The Khân is built of huge basalt stones, for the most part unhewn, between which are to be found some with raised embossing, 3 feet in size.

This circumstance, in addition to the much weather-worn, but curiously ornamented basaltic stone in the courtyard (Fig. 73), point to the conclusion that

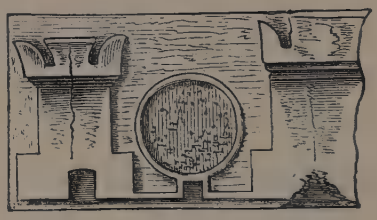
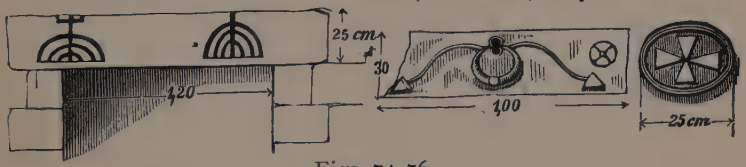


Fig 73.
Ornamented Stone in Khân el-'Akabeh.
23½ inches high by 35¼ inches long.

an ancient building stood here, probably dating from Roman ages. The track of an old highway from the Ghôr upwards to the neighbourhood of Kefr Hârib can be followed up; this, however, leaves the Khân el-'Akabeh lying to the north, and is only connected therewith by a side road. The highway is edged by strong squared stone, and served at that time as a bulwark against the steeply falling off Wâdy, the edge of which it touches. This ancient highway generally follows the new Sultâneh el-'Akabeh, down

whose steep descent the caravanserai of the Haurân thread their way all the summer. At the foot of the mountain, where the road crosses the plain Ben et-Tellul, some low round hills lie, which are called Râs el-'Akabeh (also Râs Tawâfîk).

Khân Bândak and *Dannikleh* (C. 4) are the names of a Turkoman village. The latter, however, chiefly attaches to a group of fine trees, with some old building remains somewhat south of the village, marking in all probability the ancient site. Khân Bândak contains about forty huts, miserably built out of stone and earth, with 200 inhabitants, exclusively Turkomans, who carry on some field and vegetable cultivation. In the west of the village a spring with a semi-circular enclosure of an ancient period bubbles forth; its flow irrigates some vegetable gardens. Amongst the ornamentation the seven-branched candlestick of the Jews is represented, as well as the cross of the Christians (Figs. 74–76). The skill manifested in the execution is, however, very inferior.



Figs. 74–76.
Ornamentation at Khân Bândak.

The quarried building stones are simply placed in the walls. The space occupied by the old site was not very extended.

Khân el-Barak (B. 7).—A heap of ruins on the declivities north of Kŭl'at el-Husn.

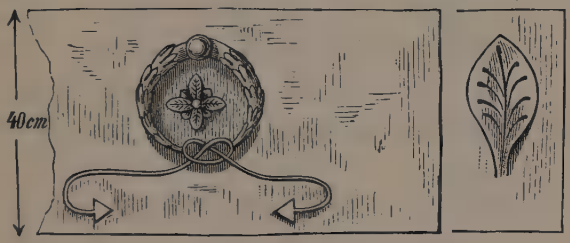
Khân Jôkhadâr (E. 5).—A ruined Khân, on the principal highway to Damascus, between Sueiseh and Khisfîn, at the foot of Tell Jôkhadâr. This latter is a hill extending from east to west, the most southerly of the volcanic chain.

Khân esh-Sh'abanîyeh (D. 5).—A ruined Khân in central Jaulân.

Khisfîn (D. 6).—A middling sized village of the Zawîyeh el-Ghurbîyeh. At the time of the Arab supremacy it was an important town, the central point of the district, and even down to the last century was superior to all the other towns of the Zawîyeh. It soon lost its importance and for a long time has been quite deserted. If I remember rightly, Yâkût mentions the town of Khisfîn as a principal military stronghold. Burckhardt ('Ritter Erdk.' xv.) calls it Khastîn, or Chastein, by which designation it is marked in the earlier maps of the Jaulân, and speaks of 'extensive ruins of a city built out of the black basalt blocks of the land with remains of a very important building.' In the history of Judas Maccabeus (1 Macc. v. 26, 36), a city called Casphor, in the land of Gilead, is mentioned near Bosor (Bosra), Alema (Kefr el-Mâ ?), and Karnaim (Tell el-Ash'ary), and which is probably identical with Khisfîn.

To-day Khisfin, although extensive, is a miserable

village, consisting of scarcely 60 inhabited huts with a census of about 270 souls. But three times as many huts are destroyed and deserted, and good hewn and unhewn basaltic stones lie in confusion across one another. Here and there Roman ornamentation appears (Figs. 77 and 78), and the sign of the



Figs. 77, 78.
Ornamentation at Khisfîn.

cross in a variety of forms on the same stone as shown on Fig. 119. Most of these, however, are buried beneath the ruins. The ruined huts are roofed with basalt slabs in the style of the Haurân ; several are to be found beneath the ground. In the western end of the city the ruin of a large building is to be found, measuring 133 feet from east to west and 160 feet from south to north (Fig. 79). There is a gate entrance 11½ feet wide in the south.

In the west, outer walls, 6½ to 9 feet thick (?), enclose a passage 19½ feet in width ; then comes an inner wall only 3 feet in thickness, which surrounds a rectangular court-yard. The outer wall makes a kind of oblique

slope and in the east has a buttress; it is very solidly

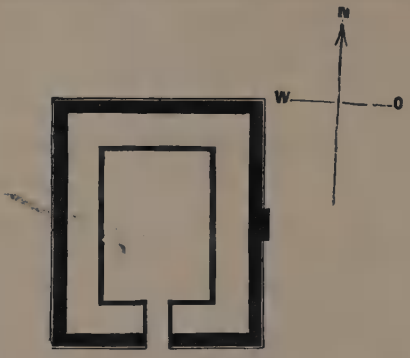


Fig. 79
Ruin in Khisfîn.

built; the whole gives the impression of a fort or fortified Khan, the architecture of which would probably be about the time of Yakût, and which, like Khisfîn, served a military purpose.

El-Khôka (C. 6).—A little winter village with a few huts, containing about twenty inhabitants. Its position on the rising high plateau above the Batîhah is a peculiarly beautiful one.

Khurbet 'Ain el-Hôr (D. 3).—A miserable little village, containing twenty-one huts with about ninety inhabitants, north of el-Kuneitrah. Few, or indeed no remains of any importance, are to be found here. The spring has a trough, no flow, is in part enclosed and contains good water. Every year the village become smaller, because the inhabitants prefer to annex themselves to the larger villages.

Khurbet el-'Arâis (C. 7).—'The ruins of the bride,' lies a little way from the discharge of the Rukkâd into the Yarmûk, on the steep margin of the high plateau of southern Jaulân. To-day it is only a heap of ruins with a strong wall against the incline, which is a few layers in height and 3 feet thick. Foundation walls 30 feet broad by a length of 13, 22, 25, and even 65 feet, are found ranged upon one another on the highest places of the ruins, whilst other traces of the same extend as far as the plain and down the slope. This was once a settled and important place, as is shown by its solid construction of large unhewn basalt blocks set together without mortar. There are also several bent angled embossments to be found here. On the slope, about 131 feet below the ruins, an excellent spring, the 'Ain el-'Arâis, flows down into the ravine and joins the 'Ain es-Fejjeh below, which is overgrown with splendid fig trees, and which trickles down into the Rukkâd. Beyond Khirbet el-'Arâis a charming undulating plain stretches right down to the Yarmûk. It bears the name of the spring es-Fejjeh.

Khurbet el-'Ashek (B. 7).—A ruin close to the shore of the Lake of Tiberias. It presents several foundation walls about 64 feet square, and lies on a small artificial elevation. It is probably a decayed Khân of the Moslem time (Fig. 80).

Khurbet 'Atâr Ghazâl (C. 5).—A small ruin north

of el-Yehûdîyeh, situated on a long extended ridge, without any particular characteristics. The 'Ayûn

Fig. 80.

Kh. el-'Ashek.

'Atâr Ghazâl lie on the western base of the ridge. They have abundant water, and moisten the whole surrounding country, in which the 'Arab el-Wesîyeh cultivate some vegetables. Around the spring are traces of masonry.

Khurbet el-Batrah (C. 5).—Totally crumbled ruins of a small village below el-Yehudîyeh. An abundant spring, 'Ain el-Batrah, flows in two branches from the ruins to the Wâdy el-Yehudîyeh.

Khurbet ed-Durdâra (B. 5).—A ruin with scattered building stones on the Wâdy es-Saffah of the Batîhah.

Khurbet Jiât (D. 3).—A ruin north of el-Kuneitrah. It occupies a small elevation, and presents a number of unusually large unhewn basalt stones, the foundations and walls being 3 feet and more in thickness. This place was certainly at one time important and extensive ; the building stones are very much weather-worn and consequently of great antiquity. An old highway

set in strong square basalt stones may be followed from el-Kuneitrah to Jiât, where it separates to the north and east. Khurbet Jiât was the first Turkoman settlement in the Jaulân. To-day, with sad faces, they talk of better days, and of the ever-increasing encroachment of the Government and Circassians who have driven them towards the south, and, above all, they regret their robbing trade, which they were formerly able to pursue unhindered. The Merj ej-Jiât, a little plain without any water, stretches east of the Khurbet to the Rukkâd. The Tell Jiât is a small hill on which the ruin leans.

Khurbet Jort ed-Dhahab (B. 8)—A small ruin in the Ghôr on the Yarmûk, at present a Bedawîn graveyard. The tombs bear the *wasm* of the 'Arab Beni Sakhr and the Segur el-Ghôr, and extend over a wide field as far as Abu Kebîr. The environs bear the name of Jort ed-Dhahab to the Tellul es-S'âlîb in the north. The (Wâdy) Jort ed-Dhahab is a dry channel in summer, which commences on the plain Bên el-Tellûl, and goes towards the Yarmûk. The entire 'lowland' (Jora) is bounded by the spurs of the Tellul es-S'âlîb in the west. This latter is a scarcely perceptible elevation of the ground which the Yarmûk breaks through, and thereby forms the 'Arâk Abu Jedeiyeh.

Khurbet Kôdana (E. 4).—The old site of the present village of Kôdana, north of Tellûl el-Humr. The Khur-

bet is a hill a little south of the village, covered with a heap of unhewn building stones, which are greatly worn and therefore of great antiquity. On its northern base a lovely running abundant spring rises, 'Ain Kôdana or Râs 'Ain Kôdana, and which, collecting in a natural reservoir, forms a watering place for cattle; it then flows into the Rukkâd. Between it and the village a second but feeble spring trickles from a decidedly modern enclosure and joins the first mentioned. At both springs are traces of enclosures and short aqueducts. Close by is the village of Kôdana, 6 miserable little huts with 30 inhabitants. This place, too, once saw better days, as is proved by the extensive ruins, the carefully hewn building stones, the remains of rounded apses $9\frac{1}{2}$ to 11 feet wide, from which, however, it is impossible to draw any plans of the original foundations, and sarcophagi of basalt which are sunk into the ground. The foundation walls of other old rectangular buildings, without mortar, are generally 3 feet, and spread over a circular space. At the west end of the village there is an especially large ancient building, called es-Sûr, which measures 101 feet east to west and 112 from north to south. The assertion of the natives that till shortly before this it served as a Khân is substantiated by the courtyard for stabling horses which runs round it. The southern door reminds one of the Haurân style (Fig. 81), and is apparently the sole remnant of

the original building. Traces of stone pivots (*a*) point to an enclosure by means of a stone gate.

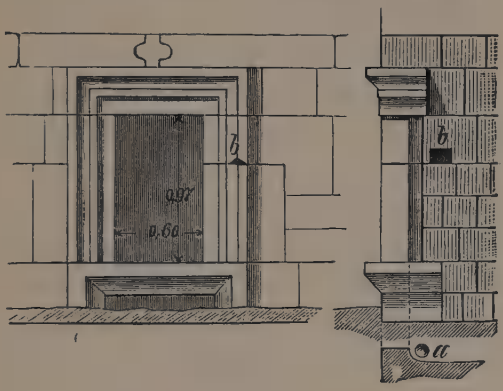


Fig. 81.

Door of es-Sûr.

The keystone of the vertical arch of the door is very peculiar.

Khurbet el-Mêdân (B. 7).—A shapeless pile of ruins on a small plain at the eastern base of the Kŭlât el-Husn.

Khurbet el-Mudowarah (E. 5).—A small ruined heap at the foot of Tell el-Faras, lying on the principal road from Sueiseh to Khisfîn. It has an excellent spring, the 'Ain el-Mudowarah, which flows towards the Rukkâd and irrigates the beautiful country.

Khurbet Mukâtyeh (C. 7).—A few ruins on a large spring, 'Ain Mukâtyeh, in the plain es-Fejjeh. The ruins lie close beneath the rock precipices of

Khurbet el'Arâis on the road from Dabbûseh to the Yarmûk.

Khurbet el-Mukhfy (D. 3).—The small scattered building stones of a former village near el-Kuneitrah. On the ridge above this latter lies the grave of the Sheikh Muhammed el-Mukhfy a revered Turkish saint. The tomb is rudely put together out of unhewn stones and surrounded by a plain wall. From him the five hill peaks of the neighbourhood receive the name of Tellul el-Mukhfy. In former times they were so thickly overgrown that one could only reach the sepulchre by great exertions. The remains of woods, thick bushes, and stunted trunks of trees corroborate this assertion. The soil of the Tellûl is of a striking reddish-brown colour, of the same sort as the volcanic cones, and is celebrated for its fertility. Near el-Kuneitrah lies the scanty spring 'Ain el-Mukhfy, with a pool which fills in winter.

Khurbet Sakûkeh (C. 3).—A widely extended but shapeless ruin on the western slope. Sheep folds (Siyar) cover the site ; the building stones are small, unhewn, and devoid of any ornamentation. Very few ruins over so wide a district present such weather-worn building material, with a complete absence of any kind of regular plan. The Wâdy Sakûkeh is small and in summer dry. The name is pronounced by the Bedawîn with a softening of the *k*, and also as Sakûjjeh.

Khurbet esh-Shareireh (B. 8).—A small shapeless ruin at the foot of the mountain in the district of Ben et-Tellul. There are no ancient remains, only scattered building stones and a fine spring, 'Ain esh-Shareireh. This rises somewhat higher up, at the foot of the mountain, and irrigates some miserable vegetable gardens.

Khurbet Sîhân (D. 7).—A not unimportant ruin on the wâdy of the same name, which, however, is called above Wâdy el-Khidr. The remains point to two periods of architecture, an ancient and a modern, in which latter the old remains have been used in the erection of small huts.

These, however, are already partly fallen to pieces. Also, this last style of building is not that of the present race, who do not understand how to place the old stones and sashes of doors and windows so carefully and cleverly upon one another as has already been done. The building stones are large, basaltic, and in parts hewn. At present the semi-crumbled places showing traces of basaltic roofing are used as sheep folds. Does not the name commemorate Sihon, King of the Amorites? At the place where the wâdy begins to sink markedly in the ground, there is a swampy spring on the way with a wide basin called Tiyâh Sîhân, which in winter is full. On the east slope of the Wâdy Sîhân is the Bîr el 'Abd, an abundant spring with fig trees, and further down in the

wâdy are three moderately large springs, the 'Ayûn Sîhân.

El-Khushnîyeh (D. 5).—A large winter village on the Roman street west of er-Rafîd, with scattered building stones. Most of the huts have fallen to pieces.

Kisrîn (C. 5).—A small Bedawîn winter village, with a group of beautiful oak trees and old ruins, south of el-Ahmedîyeh.

Kôm er-Rummân (D. 2).—A small ruin, with the remains of modern huts, cattle folds, and traces of garden plots on the southerly commencement of the Merj el Buk'âti. This place was formerly a Turkoman winter village.

El-Kubbeh, or *Kubbet-el-Karâ* (C. 5).—A Moslem saint's grave, devoid of any art, beneath oaks. Close by is a Bedawîn graveyard, and tolerably well preserved dolmens on the slopes.

The view across the lake, the Batîhah, and the woody district north of it, which is obtained from the Wely, at the summit of the hill, is magnificent.

Kubbet ed-Dhahr (C. 5).—Winter huts of the 'Arab el-Wesîyeh, near some scattered ruins, covering a tolerably wide area.

Kubza Taraiyah (B. 8).—A slope above ed-Duêr, south of Khân el-'Akabeh.

Kŭlât el-Husn (B. 7).—A mountain overlooking the Sea of Galilee, and covered with ruins. It is sur-

rounded on the north, south, and north-east by deep rocky gorges, and as the summit itself is bounded by basalt walls 60 and 70 feet in height, it forms a natural fortification of a rare description. In the south-east, only a very narrow ridge, the Dhahr el-Ahmâr, runs from the summit to the steep ascending Mukatt ej-Jamusîyeh, falling then also, though at the same time gradually, to a great depth. This ridge also presents several fragments of ruins. The plateau is covered with beautiful oaks and terebinths, which grow out amidst the rude confused piles of old building stones. If one throws a glance from the height of Kefr Hârib to the fortification, the designations el-Husn and Gamala (supposing that they really lie here), "horse and camel" (*see*, however, p. 206, note 1), appear justifiable, for the narrow ridge, Dhahr el-Ahmâr, clings like a long outstretched neck on to the giant body of the isolated mountain. Approaching the Dhahr el-Ahmâr from the Lake through Wâdy ej-Jamusîyeh, one arrives first at its southern walls. These embrace the ridge, which is only 90 feet wide; in the south, west, and east, having the colossal thickness of 12 feet, and are set in good mortar. The material used is partly limestone, partly basalt stone, with bosses which are 5 feet in length, and from 23 to 27 inches in height and breadth. In the west, where the slopes fall gradually over precipitous basalt walls, the strength of the walls is diminished, but they

are nevertheless at times built in double. A small tomb (?) cavern rests against the western wall (*a*). The eastern wall retains its thickness of nearly 12 feet. Beyond it large stone heaps may be observed, probably the remnants of two towers (*b* and *c*), the latter of which measures 25 feet—24 feet encircled by a separate wall. The many arch stones (?), having the

Fig. 82.

Fig. 83.

profile of Fig. 82, half-columns (Fig. 83), fragments of columns, cornices with egg moulding, prove that an arched structure stood here. As several sarcophagi are let into the rock terraces close by in the north, and likewise outside the wall, this building was probably a mausoleum, as one can hardly imagine a gate construction here. The sarcophagi, formed of limestone, are from 5 feet to 7 feet in length, 24 inches in breadth, and 20 inches in height. They are partly closed by a heavy basalt cover, and then let into a rock niche (Figs. 84 and 85). Their longitudinal axis is from north to south. One of these sarcophagi, by way of exception, is made from 'Ajlûn marble, and

carefully worked with a chisel (?) On its eastern side there is, by way of ornament, an arcade with rosettes

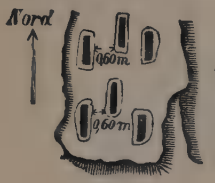


Fig. 84.

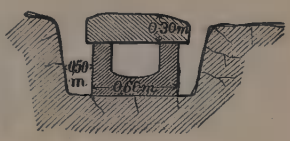


Fig. 85.

Section of Sarcophagus.

and an inscription tablet. This, however, does not bear any written characters, but appears to have been intended for the reception of a metal plinth. The wreath moulding, that the sarcophagus bears above, is only a slightly projecting ornament, and seems, like the rest, to be the work of an unpractised hand ; but it may be regarded as a leading ornamentation of the Jewish architectural period at the commencement of our era. This sarcophagus likewise distinctly extends from north to south, and is set in a rock niche close to the northern side of the remains. The northern end of the cavern-chamber, which is 20 inches deep, is rounded, forming probably the place for the head (*see* Figs. 86–90). Proceeding from *c* to 160 feet further north of the Dhahr, we reach a rock gate (*d*), that is a gate construction closing one of the passages cut in the rock, of which only fragments of the bases (Fig. 91) are remaining.

At this spot the approach to the fort above could be easily shut off, because the rock walls on each side of

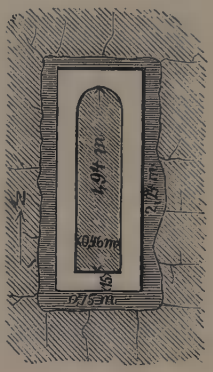


Fig. 86.
Plan of Sarcophagus.

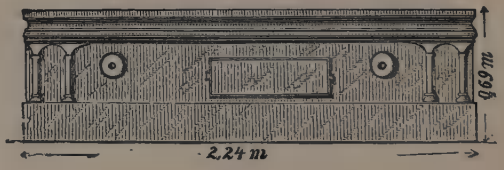


Fig. 87.
Side View.

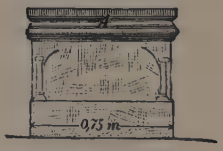


Fig. 88.
End View.

the gate fall precipitously, and the rock trenches be-

fore the gate would weaken an attack. Behind this gate there is a Bedawîn tomb with a stone circle (*see* p. 129). The wall in the west gradually vanishes, but stretches towards the east in a slightly less solid

Fig. 89.

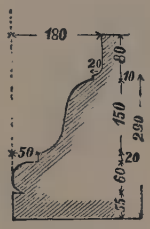


Fig. 90.

construction as far as the gate of Kŭlâh, although the precipitous walls of the Wâdy Shâb Musmâr afford a natural protection. The slightly rising ridge has meanwhile contracted to a width of 49 feet. Over high piled-up basalt blocks which must have been hurled down from the plateau of Kŭlâh in consequence of an earthquake, the gate of Kŭlâh is reached, lying 130 feet above the southern extremity of Dhahr, and 534 feet above the Mediterranean Sea, or 1,216 feet above the Lake of Tiberias. This gate, enclosed and protected by huge blocks of rock, has an original width of 12 feet. Basalt walls laid in crumbling white mortar rise on each side and extend in a thickness of 13 feet around the margin of the plateau; they are in part destroyed, and in part preserved to the height of 3 feet. From the gate, and in the same

breadth (12 feet) a rectilinear street runs which is only once broken, and is paved with basalt flags. It goes over the plateau as far as its western wall, and is bounded on both sides by massive ruins, square foundations, fragments of columns, and defaced profiles. The northern enclosure wall is the weakest; there the slopes fall at an angle of 36° to 40°, and then as steep basalt walls into the Wâdy Fîk, the wide opening of which was not favourable to an assault or bombardment on this side.

A single tower shows that the gate had surveillance. The southern side has only moderately strong walls, which are in parts 4½ feet thick, but 9½ feet high, and are built over the precipice of the perpendicular basalt rocks with a fall of 65 to 100 feet. A pressure from this side would have been still less to be feared, if the Wâdy ej-Jamusîyeh had not permitted a siege of arrows from the heights of Khalas by means of the narrow aperture it makes here (*see* plan). It is for this reason that two strong towers once overtopped this southern fortification wall. In the west, where the basalt lava runs in terraces, there is a double wall fallen to the ground, with a tower ruin on the southern corner of the wall. Probably also a gate stood here on the western edge of the street, but the ruins are too scattered for any certainty about this. The plateau, or summit, shut in by enclosure walls, hid the city. The visible foundations are

pressed close upon one another; they are for the most part hanging together, and in any case only leave space for a very few side streets in between them. The length of the plateau, or more correctly the principal street, amounts to 600 yards; the breadth varies between 120 yards in the east, 262 yards in the centre, and 142 in the west. The building stones are

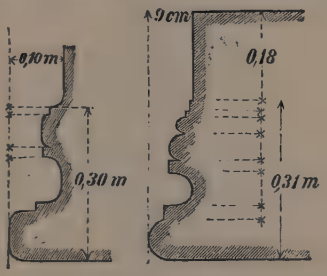


Fig. 91 and 92.

Bases of Columns cut in the rock at Kŭlât el-Husn.

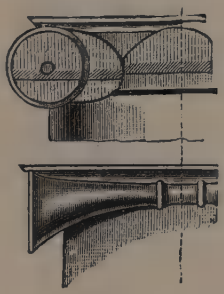


Fig. 93.

Capitals at Kŭlât el-Husn.

large and hewn, but much weather-worn; the capitals

and bases of columns in the Ionic, Corinthian, and Doric styles show the slightly projecting profile of the sarcophagus described above (Fig. 86–90).

Very plentiful are the cone-shaped cover ornaments of columns, which substituted capitals (Fig. 94): also

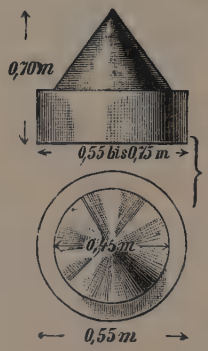


Fig. 94.

Cone ornament.

hollowed shafts of columns (Fig. 95), arch stones of

Fig. 95.

the kind shown in Fig. 96, and fragments of pipes,

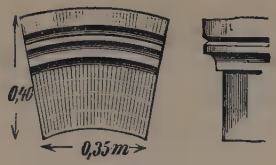


Fig. 96.
Arch Stone.

probably the remains of an aqueduct, all of basalt (Fig. 97).

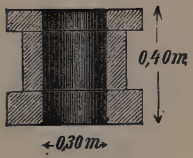


Fig. 97.
Section of Pipe of Aqueduct.

The egg ornamentation is absent from the egg-staved and serrated circlet (Fig. 98); instead only

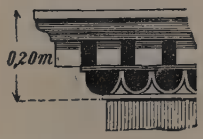


Fig. 98.
Cornice at Kŭlât el-Husn.

cavities are to be seen, which perhaps were inlaid with precious stones. About the centre of the plateau, near the principal street, two large still partly preserved buildings stand. The eastern (Fig. 99) is square, and very strongly walled, its northerly wall rising on the principal street shows inside a niche

1 m. in width, and was connected by an arch with a demolished building which adjoins. Near this lies a

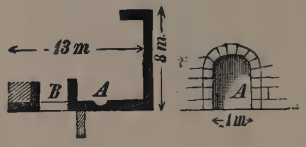


Fig. 99.
Old Building.

granite column 13½ feet long, and 19½ inches in diameter; others likewise of granite, but only 5 feet to 6½ feet in length, are to be found in the environs. Proceeding 100 yards further west, a second building is met, which is unusually solidly built of great hewn quarry stones on a rectangular ground plan; on its eastern side there is a niche 19 feet wide (*see* the plan, *d*, Fig. 100). Have we a synagogue or a

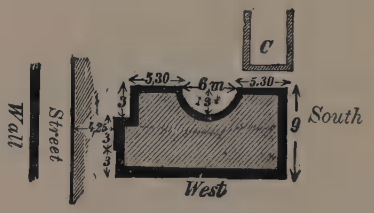


Fig. 100.
El-Habs at Kŭlât el-Husn.

Place of Justice before us? The thickness of the walls cannot be exactly determined. Here also large granite columns lie round about. East of this niche there is a large well-filled cistern, 59 feet long, 17¼

broad, and 28¼ high, which is accessible from the east by a flight of steps, and is called by the natives el-Habs 'the prison' (Fig. 100, c). Possibly it was once filled by a conduit. Besides this, there are still several other large cisterns in the west of the plateau. Many depressions and holes in the ground indicate that this city had also subterranean chambers. One of these is still to-day accessible; it lies close to the northern wall of the western corner of the plateau. A small staircase leads into a choked up, low, but broad room, supported by rafter columns; its walls are worked in hammer and chisel, but are not dressed. These subterranean chambers probably served as places of refuge during sieges; there must have also been outlets leading down to secret paths of the mountain, otherwise they would scarcely have constructed these so near the fortification wall where a foot descent is possible.

If we compare Kûl'at el-Husn with the testimony of Josephus about Gamala ('Jewish Wars,' iv. 1.), we can scarcely doubt the identity of these two places. The deep valleys of the sides and front are the Wâdy Fîk and ej-Jamusîyeh; the transverse ditches are found in front of the rock gate described; the plateau bore the 'closely' built houses of the city; the spring inside the wall is the el-Habs which supplied the cistern with spring water by a conduit from without.

As to the subterranean passages and sepulchres

which Josephus mentions, we have probably a trace of them in the chamber described above in the north-west corner of the plateau. The old name, Gamala, which the dwellers did not pronounce correctly in the time of Josephus,* has been supplanted by Husn, which signifies 'horse,' as well as 'natural fortification.' As the last meaning is already expressed by the preceding Kŭlâh, we must certainly abide by the former.

The designation 'horse,' however, recalls the place Hippos, or the province Hippene, in which, as we saw on page 195, this fortification must certainly have laid.†

El-Kuleiâh (E. 5).—A rugged, rocky, crescent-

* Josephus says ('Jewish Wars,' iv. 1,) that the natives did not correctly *express* the exact meaning of the name of this place (in the pronunciation).

† Compare with this the opinion of Frei in Z. D. V. P. ix., 130. Frie appears, in my opinion correctly, to reject the dentification of Kŭl'at el-Husn. It is true that some characteristics correspond to the description given by Josephus: others, however, are so decidedly opposed to the identity that there is little to be placed on the points of agreement. If one rigidly compares the statements of Josephus with those given in Schumacher's carefully sketched plan it is impossible to resist the impression that Josephus had another site in his mind. The designation el-Husn cannot be otherwise explained than in the names Husn el-Akrâd or Kŭl'at el-Husn near Homs, Husn Suleiman in the Lebanon mountains, Husn Hîha north of Zahleh in the Lebanon district. In all these cases it means fortification (Socin, Z. D. V. P., iv., 4). The word Husn does not mean horse, but el-Hisân means stallion.

shaped crater, the most fissured of all the volcanic chain south of Tell el-Faras. In front of the principal western crater lies a smaller and more easterly one, the Tell ed-Dar'aîyeh, probably a portîon of an earlier crater.

El-Kuneitrah (1) (D. 6).—A large ruin, with crumbling winter huts on the Wâdy el-Kuneitrah, a side valley of the Wâdy Joramâyeh.

Distinct traces of a city wall run round the square-built place, which stands only a little higher than the plain. The building stones are fitted in white mortar, but are small, and do not recall the finished masonry of the Roman ruins. The foundations also point to large buildings at this place, which belong to the latest architectural style, not counting the most recent, probably of the Moslem era. A dirty spring rises in the north, and flows into the Wâdy el-Kuneitrah.

El-Kuneitrah (2) (D. 3).—The principal place and seat of Government of the Jaulân. The 'city'—so the Kaimakam wishes it designated—consists of 260 buildings, which are mostly well and carefully constructed of basalt stones, and contains, excluding the soldiers and officials, 1,300 inhabitants, principally Circassians. The Serâî is a two-storied and, for this country, fine and solid building; it embraces a large courtyard, and near the apartments of the officials on the second storey there are dwellings for soldiers and

stables *in parterre*. On both sides of it range evenly constructed chief streets; they run from north to south, are 35 feet broad, and have raised pavements for the booths of the Damascene merchants.

At right angles to the principal streets side streets lead to well-built magazines and private dwellings. It does one's eyes good, after having seen so many devastated places, to arrive at a flourishing, evenly-constructed, clean village, whose inhabitants, with their magistrate, or Kaimakam, an energetic, industrious old Turk, immigrated from the neighbourhood of the chief Turkish town, have more feeling for European systems than the citizens of many towns in this country.

Looking, too, at the towering hay-cocks, the swift, rattling Circassian carts, the preparation of dried bricks from the fine earth of the neighbourhood, and, above all, the cleanliness of the streets, one asks involuntarily, 'Am I in the Jaulân?' The merchants have for sale pretty nearly all that is required by an Oriental citizen household. Once, and sometimes three times, a week caravans bring wares and dried fruit from Damascus; here they rest for one day, crossing the Jisr-Benât el-Yakûb on the following day in order to reach Western Palestine.

In the place itself turkeys are reared.

The surroundings of this place are lovely and fertile. It lies on the northern extremity of a high

valley, looks north on the Tellul el-Mukhfy, south on the Hami Kursu, and west on the great dew and 'rain-distributing' Tell Abu en-Nêda. At an early hour in the morning a thick fog rises out of its crater, and envelopes el-Kuneitrah and its neighbourhood in a damp fertilising mantle, which only subsides before the rising sun. It is for this reason that el-Kuneitrah is cool also in summer, but is in winter the scene of a heavy snowfall, a result of its high position (3,300 feet) and the proximity of the high mountains. We have already seen that the district is windy (*see* the Jort el-Hâwa). In the north stands a windmill, whose naked arms have suffered from the violence of the storm. Its roof, not having been movable, has yielded to the strong winds, and is at the present day useless.

In the middle a splendid clear spring rises, which yields water in abundance for all. The spring-head is in a basin 10 feet square and 6 feet deep. It is called el-Hammâm, and sends off its water in various directions amidst clayey reeds. One of these, serving as the flow of the principal stream surrounds the place in the north, and enters the plain as the Wâdy el-Kuneitrah. A little further east it feeds some large natural reservoirs, never absent from any Circassian village, and then turns slowly to the Rukkâd. As is obvious from its name, el-Hammâm was an ancient bath ; the walls consist of hewn and

unhewn building stone set in white mortar. Near the Hammâm rises the modern mosque. It is decorated with old Byzantine scroll ornamentation, which is chiselled in peculiarly soft whitish-yellow stone (clay), and may be considered a masterpiece of its kind (Fig. 101). Not far from this mosque a beauti-

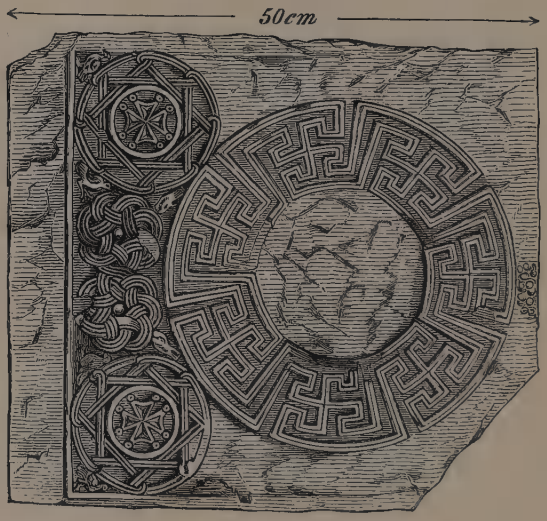


Fig. 101.
Scroll ornamentation.

fully polished granite column stands, 8 feet in length and 21 inches in diameter, which, at the time of my visit was brought to the new mosque. Granite is very rarely met with in the Jaulân, and implies a building of particular importance. Besides the Byzantine decorations, we find the leaf ornamentation modelled

on basalt of Fig. 102, which is 5 feet in height, and a

Fig. 102.—Leaf ornamentation on Basalt Slab.

characteristic piece of Haurân architecture. On the door-posts of the Sûk or market one may observe

several crosses on old stones (Fig. 103). Christian

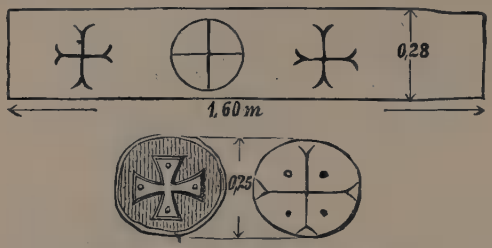


Fig. 103.—Lintel with Crosses.

symbols (Figs. 104 to 106) are also found on basalt

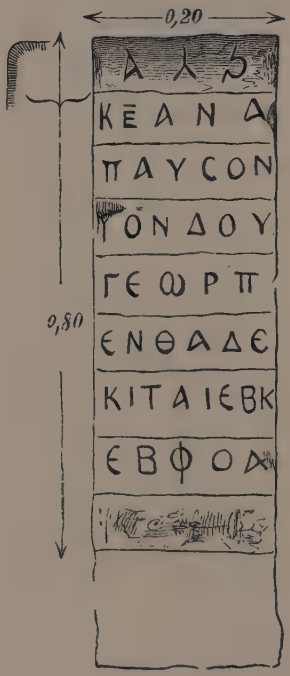


Fig. 104.—Greek Inscription.

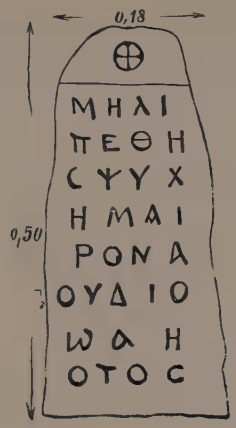


Fig 105.—Greek Inscription.

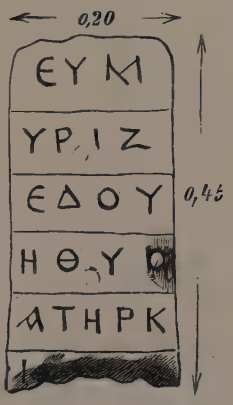


Fig. 106.—Greek Inscription.

tombstones bearing Greek inscriptions in the old

graveyard south of the village, now, unfortunately, built over. These gravestones are unhewn; the inscription is deeply engraved, but with very little workmanship.

El-Kuneitrah was formerly a Khân, a caravansary with military stations, at which, as at present, the camel caravans make a halt, bringing the most valued articles, such as tea, spices, coffee, dates, &c., from Damascus and the valley of the Euphrates. Twenty years ago it was not yet the seat of Government, and even at the beginning of this century, as is shown by Burckhardt's Report ('Ritter,' O.S., 167), was a deserted spot. Burckhardt also discovered granite pillars on a beautiful mosque, and tried to identify the old Sik, north of the Khân, with Kenath. The Khân has disappeared, and the Serâî arose from its ruins. Very little is to be seen at present of the old site; most of the old building stones have been used again, and only rude, disjointed basalt wall remains are to be found in the north, not far from the windmill.

The proper building stone of el-Kuneitrah is basalt. As I have already mentioned, it is made in part of clay bricks, mixed with fine straw, from 12 by 4 by 3 inches, and then dried in the sun. This material, made by the Circassian with great care, is not to be despised, but it does not come up to the hard basalt, which is so durable.

Kŭrm el-Emîr (C. 3).—Vineyards, with a large building near Skek, the property of the 'Arab el-Fadel.

El-Kusbîyeh (C. 5).—Also called el-Kusebîyeh, is a heap of ruins south-west of Selûkîyeh. The highest point is occupied by a totally destroyed square building, on the slopes of which several foundations are to be seen, built of unhewn stones and fitted without mortar. A quantity of building rubbish and stones cover the immediate surroundings. At the western base of the hill a spring set in careful old masonry rises, which is overshadowed by a wild fig tree, and in the abundance, clearness, and purity of its water leaves nothing to be desired. It flows, as an active stream, 437 yards towards south-west, then unites with an equally abundant spring, and after a short course turns a corn mill. They irrigate some vegetable gardens and fields, and finally enter the gorge of the Wâdy Bîr el-Kabak or Wâdy el-Yehudîyeh. The country is stony, but extraordinarily fertile and rich in water.

Kŭsr Bêrdawîl (C. 7).—A small ruin close to the fall of the Wâdy ed-Difleh, with several building stones and traces of a large building and choked-up cisterns. It is said great caverns are to be found in the perpendicular rock walls beneath the ruin. The position of this 'fortress of Baldwin,' who, according to tradition, gladly tarried here, is an imposing one and is naturally protected; it commands the

deep and broad valley, as well as the surrounding plateau.

Kŭsr el-Kelbeh (B. 8).—'The castle of the bitch.' A small ruin on a terrace in Ghôr, near the Lake of Tiberias, 6½ feet in height and 10 feet square. It is solidly built with white mortar and unhewn stones, exactly like the Roman ruins near Tiberias; possibly a small tower or monument. The saying goes that a company from the neighbouring Semakh had prepared for a journey into the Ghôr, and encamped here with the object of partaking of a meal. Whilst the food was being served out, a serpent dashed out of the brushwood, licked the food, and vanished, The company fled apart, but soon, however, were just about to continue their repast when their little dog snatched a few bites, and immediately sunk down dead. The food had been poisoned by the snake, but the little dog had saved the lives of the party; they therefore determined to erect a memorial. So narrates the Sheikh of the Arab Segûr el-Ghôr.

El-Kuweîyir (B. 7).—The small sloping plateau of a hill on the Lake of Tiberias, bounded by steep limestone rocks; it has a few remains of masonry on its eastern half. According to oral testimony, travellers recognise in this place the Gamala of Josephus; but more serious consideration should be given as to whether Kŭlât el-Husn is not equivalent to this ancient place. Moreover, the opinion of the inhabitants that

a 'Burj' stood there once is not improbable, and agrees with De Bertou's statement ('Ritter,' O.S., 28), that the rock hill is called 'Khân el-Kueir,' and that on it is 'a caravansary in ruins.'

El-Lâweh (C. 6).—A miserable Bedawîn winter village and some ruins, surrounded by beautiful oak trees, on the northern margin of the Wâdy es-Semakh.

Close by is el-Mushkêrfâweh, likewise a winter village with a few huts, containing many old building stones and splendid oaks. Now and then some Bedawîn families inhabit the huts during the summer. The place is certainly the one which Burckhardt heard named 'Mejeiferah,' near whose ruins the Wâdy es-Semakh debouched into the Lake, but which Zeetzen or Bertou found again ('Ritter,' O.S., 355). The statement about its position is, on the whole, not incorrect, because el-Mushkêrfâweh lies above the debouch on the plateau.

For the pronunciation of the name, see index.

El-Maghrîk (C. 1).—A small flanking plain of the Merj el-Yafûreh, not far from Mejdel esh-Shems, so called because the melting snow inundates the seeds and smothers them.

Several water-trenches soak through it.

Makâm el-Emîr (C. 2).—The tomb of an old Emîr of the 'Arab el-Fadel, lying north-west of Skek, and overshadowed by a group of magnificent trees.

Makhâd Esbêh (C. 5).—A passage of the Wâdy Ghadîr en-Nuhâs, near the rock gate Shâfât Esbêh.

Makhâdet el-'Adêsîyeh (B. 8).—A ford of the Yarmûk at Abu Kebîr.

Makhâdet el-Ikful (B. 8).—A ford on the Yarmûk, near Khurbet Jort ed-Dhahab.

Makhâdet el-Mar'eiyeh and *Makhâdet Umm esh-Sherûb* (C. 8).—Two fords of the Yarmûk below and above Makhâdet Umm Kharrubeh.

Makhâdet es-Siyarah (B. 5).—A ford of the Jordan, at a rapid part of the river, between the Lake of Huleh and the Lake of Tiberias.

Makhâdet Umm Kharrubeh (C. 8).—A ford of the Yarmûk below Dabbûseh.

Makran el-Widiân (B. 6).—This is the name of the swampy delta formed in the Batîhah by the debouching of the rivers into the Lake of Tiberias.

Mamid el-Ma'ânik (B. 8).—A long extended ridge of the slope at Khân el-'Akabeh.

El-Mansûrah (D. 3).—A large Circassian village, near el-Kuneitrah, comprising about 90 villages and 400 inhabitants. It is growing rapidly, and shares with el-Kuneitrah and Ayûn es-Suwân the splendid plain, stretching between the two volcanic ranges, for its agriculture.

El-Mansûrah (D. 5).—A small Bedawîn winter village on the upper Wâdy Joramâyeh, containing only four huts, without any ruins worthy of notice.

El-Medjâmiâ (C. 5).—A heap of ruins, the stones mostly rough and unhewn, and decaying Bedawîn huts in a beautiful position at the commencement of the woody district north of Batîhah. A good spring rises 550 yards further north. The neighbouring Wâdy el-Medjâmiâ (Wâdy, ed-Dalieh), only 25 feet deep here, has clear, vigorous-flowing, good water, and countless fish in the rock clefts. Riding from here to the large ruin el-'Aselîyeh, one crosses a splendid wood district of terebinths, oaks, and wild almond bushes, within which small tracts have been made arable, and where the good stoneless basalt soil ought to be productive. This region forms a depression, or more correctly the last terrace of the lava torrent, which falls from the high plateau to the Batîhah, and is spread over with an alluvial layer sufficient for agricultural purposes. Traces of old roads and nameless ruin heaps are very plentiful in this beautiful district, which seems to have been created for a small colony. Water, like building stones, is very plentiful, and if this portion of the Batîhah could be subjected to systematic cultivation, a highly rich agricultural district, measuring over 8,000 hectares, would be enclosed.

If these were also to take place in the ez-Zawîyeh el-Ghurbîyeh in the south-east, then a high plateau in a central position, with an area of at least 1,500 square miles, would be accessible to human labour, producing the most important fruits, and which

would not be too far distant from Palestine and its sea coast.

This district would border on the east, the magnificent Haurân, with its extended corn-fields and towards north-west, lie near the upper Jaulân, with its luxuriant pasturage for cattle breeding. A single railway line would place this district in communication with the central point of our civilisation.

El-Medjnûneh (C. 8).—One of the characteristic smooth terraces of the Yarmûk declivity, similar to the plain es-Sateh (roof) near el-Hammeh.

El-Mejdelîyeh (D. 6).—(*See* under el-Ebkûriyeh.)

Merj et-Tabel (D. 2).—An undulating district south of Jebâtâ el-Khâshâb, in close proximity to which a sacred tree stands.

Merj el-Y'afûreh (D. 2).—A plain south of Mejdel esh-Shems, flooded by the Nahr es-Sa'âr, which latter turns some mills, and irrigates the poplar groves (Hôr) and meadows. The plain is named from the whitewashed cupola of a Moslem saint, which is situated in the southern part of Birket Râm ; the water of a rich spring flows by it, and turns a mill in the neighbourhood of the Birket Râm.

El-Mes'adi (C. 2).—A hamlet consisting of 60 huts, deserted in summer, near the Birket Râm, belonging to the adjoining Mejdel esh-Shems.

The inhabitants only use the huts during seed and harvest time. Every door is fastened by a block of

wood or piled-up stones, but the huts themselves are carelessly built.

El-Mes'adîyeh (B. 6).—A ruin and winter village of the 'Arab el-Tellawîyeh, on an artificial elevation of the Batîhah on the Lake of Tiberias.

The ruins, with a few palms and fruit trees, the last remains of a once large vegetation, are unimportant, although extensive; the buildîng stones are mostly unhewn. The place is surrounded by marshes, and consequentiy unhealthy.

The Wâdy el-Mes'adîyeh or Wâdy es-Saffah, debouches west of the Wâdy ed-Dalieh, and east of the ruins, into the Lake. To me it appears that the old site corresponds to the Biblical Bethsaida Julias, because, at the present time, it lies quite close to the Lake, and in earlier times must have lain immediately on the Lake (*see*, however, under et-Tell).

El-Mezra'a (C. 2).—The village opposite the winter quarters of the Fellahîn, is on the Wâdy Za'ôra. In seed time it is used for storing grain. In summer, *i.e.*, from May to the end of July, the Mezra'a is deserted, like the winter villages of the Bedawîn.

Mikiall (C. 7).—A ruin without importance in Wâdy Fîk with some pools grown round with olive groves.

Môbarah (D. 7).—Extremely rocky and wild slopes on the northern bank of the Rukkâd, near Kefr el-Mâ. Some remains of ruins and caves are to be found in

the basalt rocks bounding the plateau; they are called Tâket el-Harîreh.

Môbarat 'Ayûn (B. 8).—A district close to the precipice of the Wâdy 'Ayûn, north of the same-named ruin.

El-Mudowarah (C. 7).—A ruin and some winter huts on the small plateau of Lime-hill, on the upper Wâdy es-Semakh.

El-Muêsi (C. 3).—A small pile of ruins at the foot of the Shâfât Kŭttah. Near it stands the Shejert el-Muêsi, an isolated tree with a few ruins. The district is a solid mass of lava, and uncommonly stony.

Mukatt ej-Jamusîyeh (B. 7).—A terraced slope above Kŭlât el-Husn. (*See* p. 195.)

Mumesêh (D. 4).—Two newly-established Circassian villages, one of which leans directly on the northern promontory of the Hâmi Kursu, and contains 22 huts, whilst the other lies somewhat more west on the plain, and consists of about 60 buildings. Both flourish more rapidly than the other Circassian villages, are well and spaciously built, and have together a population of about 330 persons; there are few old building stones.

El-Mûrîyeh (E. 6).—Heaps of ruins and sheep-folds on the steep fall of the Nahr er-Rukkâd.

El-Mushbak (C. 6).—A heap of ruins at the spot where the Wâdy esh-Shebîb and the Wâdy ed-Difleh join the Wâdy es-Semakh. Great basalt building

stones and some splendid terebinths mark out the place. Still more ancient building remains and a luxuriant plant growth are to be found towards the east.

El-Mushkêrfâweh (C. 6).—(*See* el-Lawîyeh.)

Nâb (D. 7).—Ruins on a hill in the ez-Zawîyeh el-Ghurbîyeh district, with the spring 'Ain Nâb in the north-east, and an old stone enclosed pool in the south-west, which is partly fed by the spring.

Beneath the debris lie large unhewn and hewn stones, basalt columns, and the usual Haurân ornaments, very much defaced. The walls of the fallen-in old buildings are 29½ inches in thickness, and arranged in courses as shown by Fig. 107.

Fig. 107.
Plan showing layer of stones in wall.

Burckhardt speaks of a rain-pool—Nam—in this district, which is probably identical with Nâb.

Nahr er-Rukkâd and *Nahr es-Sa'âr* (D.F.E.).—(*See* pp. 31, 33.)

Nakasa (B. 7).—An extended but shapeless ruin on Jebel Zafârân, near Fîk, distinguished by its beautiful situation.

Namrah (C. 2).—A small ruin, with crumbled winter

huts and sheep-folds, and a few old building stones, near the Birket Ram.

Nu'arân (C. 4).—A large ruin on the via maris. Here the roads part, the via maris taking a more northerly direction to el-Kuneitrah, whilst the second (es-Sultaneh) strikes east over er-Ruzanîyeh to the Tell el-Faras. According to native tradition, in earlier times Nu'arân was an important caravan station. The ruins are on a hill, whose rocky eastern part falls into a valley watered by a spring. They indicate two kinds of construction: a subterranean, to which rooms covered with basalt flags belong; and to a Roman, from which the walls jointed in mortar and column ornamentation date. In the north there are walls from 31 to 35 inches thick, which are in courses like those in Bêdarûs. South of the ruin a building, called el-Hammân (Fig. 108), rises 10 feet above a good spring amongst fig trees and palma christi bushes. The edifice is laid in mortar, and has a fallen-in cupola in the east, and an antechamber in the west. The walls are about 3 feet thick; the cupola was built of small stones, with a good deal of mortar, &c., and is of the same description as the Roman remains in Tiberias.* Steps lead up from the spring to the building, which in former times was probably a bath. On a stone near a cross (Fig. 109, *a*) is to be found several ornamentations which appear to have been only scratched with

* Compare my note to Kusr el-Kelbeh on p. 216.

an iron graving tool, for instance, an eagle (Fig. 109, *b*), which, like the other ornaments, is defaced, and only exhibits a small measure of art. The decorated stones have rounded upper edges, are long and narrow, and must have been used as brackets or corbels. On the building stones of the northern part there is a kind of

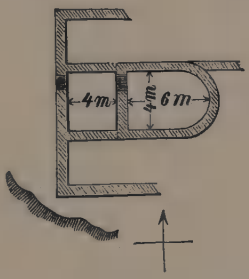


Fig. 108.—Old Building in Nuârân.

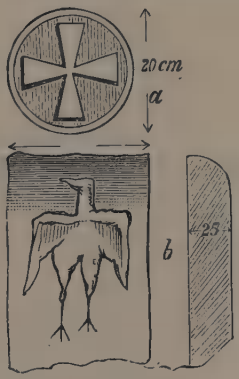


Fig. 109.—Ornamentation on Stones.

rosette decoration. The capitals, Fig. 110, *a* and *b*, are basaltic, and in the Doric or Haurân style.

Burckhardt speaks of the ruins of a town, Nowarân, which, in Crusading times (Wilken, 'Gesch der Kr.,' ii.,

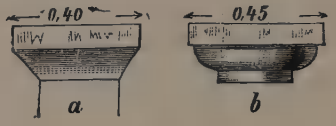


Fig. 110.

Capitals in Nuârân.

68, according to Ritter), was called Nuara. According to Schubert's observation, walnut and oak trees grew near the abundant springs, but to-day we only find fig trees and palma christi shrubs.

Er-Rafîd (E. 5).—A considerable ruin on the principal highway, near Tell el-Faras. Although the huts of the Bedawîn are destroyed, these still encamp in the immediate neighbourhood, and seek for treasure in the old ruins. In the middle of the ruins is an old aqueduct, which conveys the water from a spring which rises in the north of the plain. It is called 'Ain er-Rafîd, and is celebrated for its abundance and excellence. An eastern arm flows into the Rukkâd. The district abounds in water as well as pasturage, and recently been seized by the Government. Two periods of architecture are distinguishable in the ruins. The old Haurân style below, and the Arabian one above ground. To the former belong small subterranean remains, overlaid with basalt slabs, which are rudely constructed ; there are also a quantity of un-

hewn basalt blocks. Portions of buildings originating in the Arabic period are found on the surface of the ground; they are better built, and separated into two parts by an arch.

The arches bear Haurân characters, as in el-Butmîyeh (Fig. 111). Their apartments contain in parts stone

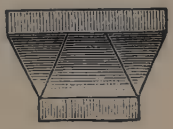


Fig. 111.

cells (*see* Fig. 112). The square doors present over the lintel square apertures 20 inches square, executed in the Haurân style, or instead of that a rosette, 10

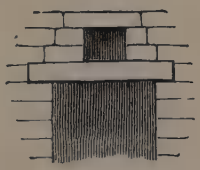


Fig. 112.

Door in er-Rafîd.

inches in diameter, similar to the centre one (Fig. 113). The subterranean walls, as well as those above ground, are as much as 3 feet in thickness. To the Christian period belong the carefully hewn door posts which are partly decorated with a rectilinear cross, and partly in the manner of Fig. 103. The ornament of Fig. 114 is more peculiar. In the south-east of the

Fig. 113. Fig. 114.

Ornamented Lintels.

place we find traces of foundations of a building with apses, probably of a church (Fig. 115). Some of the

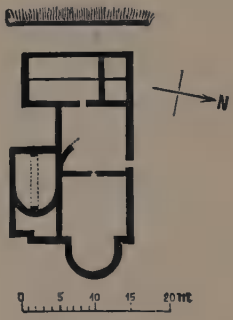


Fig. 115

Plan of Church ?

stones are large and carefully hewn, some are rude. The wall course, about 3 feet thick, follows without mortar, and in such a way that the stones of the single courses, which are 12 to 16 inches high, lie across each other diagonally in the manner shown on Fig. 116.

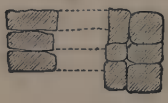


Fig. 116.

Sketch showing Stones in Wall.

Beneath the ruins several vaulting and keystones

lie, proving the construction of a dome-shaped apse. The outer sides of the walls appear to have consisted throughout of carefully hewn stones.

Er-Rafîd, so far as the quantity of building stones and the well-preserved parts of buildings are concerned, is one of the most important ruins in the Jaulân, and must have been inhabited till quite recently. Altogether, antiquity seems to have early recognised the value of the fruitful irrigated district between el-Kulei'ah, and the Tellul el-Humr, Tell el-Faras, and the Rukkâd, and to have adorned it with solid structures.

Rakâkiyah (C. 8).—The lava terrace bounding the Yarmuk below Dabbûseh, an eastern flank of the plain es-Sateh, near el-Hammeh ; the 'Arak Rakâkiya are the slopes of the plateau overtopping this terrace.

Râs el-Hâl (E. 7).—Also called Tell el-Ehdêb. A pointed hill on the eastern slope of the Rukkâd, which probably had its origin in a gliding hill, and which bears some ruins on its ridge (*see* p. 35).

Râs esh-Sheikha (B. 8).—A mountain prominence near the Khirbet esh-Shareireh, north of Khân el-'Akabeh.

Rasm el-Hîrân (E. 5).—A rocky ridge, the termination of a lava torrent, with some ruins, east of er-Rafîd, on the Rukkâd.

Er-Râwiyeh (C. 3).—Eleven winter huts belonging to the 'Arab el-Hawâj, with some old remains, under

which are foundations, and in the west a large enclosing wall, built of rude basalt blocks. Beyond this a square cavity in the ground is likewise set in old masonry; the last is perhaps an old reservoir. In the neighbourhood there are several dolmens.

Rod el-Bâneh (B. 8).—An arid wâdy, which debouches from the north into the Yarmûk, near el-Hammeh. (Comp. p. 158.)

Er-Ruhîneh (E. 4).—A small Circassian village, north of el-Breikah, with about 40 houses and 180 inhabitants. The village has only just originated, but is regularly constructed in a fertile irrigated region, near the Rukkâd.

Rujum el-'Abdeh (B. 6).—A small volcanic hill, with some ruins and fig trees in the Batîhah. The copious spring, 'Ain Musmâr, rises at its northern base.

Rujum el-'Abhar (C 7).—A large heap of ruins of weather-worn building stones, covered with 'Abhar or lilac.

Burckhardt also mentions it, as it lies on the road from Fîk to Khisfin.

Rujum Abu Mashâk (C. 4).—The leaf-stripped hill near Nu'ârân, so called because till a few years ago an oak visible to the whole district stood here, which was felled by a sacrilegious hand. Some old building stones lie near.

Rujum el-Butm (C. 7).—A small hill of ruins, with

sheepfolds, consisting of old building stones, not far from el-Yâkûsah.

Rujum el-Fâr (D. 7).—An ancient and ruined pile of rude basalt blocks on the Rukkâd, forming the eastern limit of the district of Fîk.

Rujum el-Khiyâr (C. 7).—An ancient memorial (*see* p. 270), composed of rude basalt blocks.

Er-Rumsanîyeh (D. 4).—A large ruin on the ridge and slopes of a hill. A quantity of large unhewn and hewn stones tower one upon another in such great piles that a plan is not possible. In the west we find a somewhat isolated building, with circular apses in the north, shut in south by square foundation walls. A little nearer the hill, more subterranean chambers are discovered, roofed with basalt slabs 6 feet long, which contain crypts like those in Kôdana ; near and above them are shapeless piles of building stones, probably of the Roman period. On the northern summit of the extended volcanic ridge, running from north to south, rises a large, ancient, but newly-restored building, whose plan is illustrated on Fig 117. A large chamber, divided by pointed arches, 9 feet high, strikes a smaller one from an opposite direction. The arches are 27 inches, the enclosing walls 35 inches in thickness. The building stones used are throughout carefully hewn. At the head, certain bits of disconnected walled-in masonry tell us that the building was erected in Moslem times from the ruins of the

Christian buildings. This assumption is supported on the one side by the existence of pointed arches, on

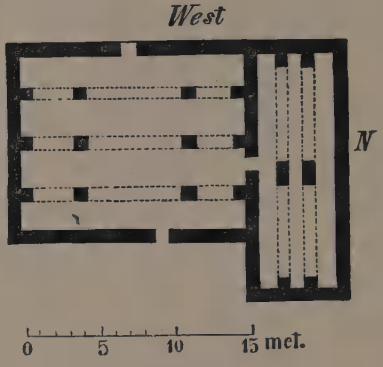


Fig. 117.
Ancient Building Restored.

the other by the description of ornaments found on the old fragments. The first ornaments which strike the eye, coming from the west, are to be seen over a door the lintel of which bears three characteristic crosses, with grapes, and the letters M. and N.* (Fig. 118).

Fig. 118.

Fig. 119.

Ornamentation on Lintels

The lintel on a door to the east (Fig. 119) has two crosses, and between them a defaced ornament. On

* It is probable that A. should be read in place of N., and hat M. stands upside down. Thus "Alpha and Omega."

the ground near the door first-mentioned lies another ornamented lintel of basalt, with a Greek inscription (Fig. 120).

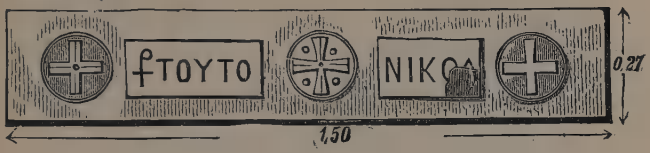


Fig. 120.

Lintel Stone with ornamental Crosses and Greek Inscriptions.

Inside the building one sees close to an arch stone a large cross (Fig. 121). On another the festooned

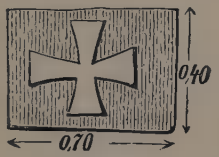


Fig. 121.

Cross Ornament at er-Rumsanîyeh.

ornamentation of Fig. 122, and more remote, placed

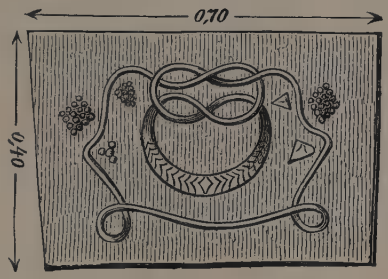


Fig. 122.

Ornamentation on Stone.

indeed on the top, the ornamentation of the arch

stones, Fig. 123 and Fig. 124, with palm trees and rosettes.

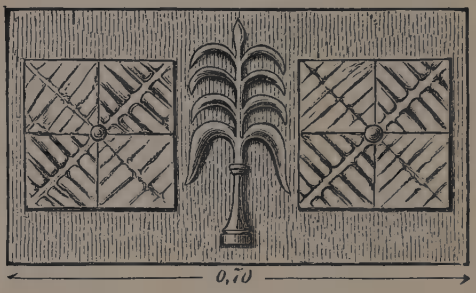


Fig. 123.

Ornament at er-Rumsanîyeh.

Fig. 124.

Ornament at er-Rumsanîyeh.

Another arch stone, likewise placed on the top, bears the Greek inscription of Fig. 125 round a palm tree.

Besides which the walls are covered with festooned

ornamentations of the same description as that shown in Fig. 122; these, however, are more or less greatly defaced. So that here there must have been a greater

Fig. 125.

Greek Inscription at er-Rumsanîyeh.

development of art than at any other place in the Jaulân, with the exception of Fîk. The present building is still overlaid with basalt slabs and corbels, similar to those in the building mentioned under Jibîn.

Towards the east, at the base of the precipitous hill, there is a natural pool of spring water, the Birket er-Rumsanîyeh, whilst in the west the 'Ain er-Rumsanîyeh dispenses abundant and excellent water.

The ruins stretch to these waters, so that they have a considerable extent. Interesting as they are, their exact purpose has hitherto remained uncertain.

Er-Ruzanîyeh (C. 4).—A winter village, belonging to the Turkomen, with huts of stone and earth. Only a

few antique remains of building stones are to be found. An abundant spring, the 'Ain er-Ruzanîyeh, rises in the east. The wâdy, named after the place, is here less deep, craggy, and rent. It begins near ed-Delhamiyeh, and is called at first after this name; it conveys but little water, and below er-Ruzanîyeh takes successively the names—Wâdy Ghadir, en-Nuhâs, Wâdy ez-Zawâtîn, and Wâdy ed-Dalieh. It is the most important watercourse of the Batîhah. The principal road across the Haurân to er-Rafîd touches the place, which in former times must have been important.

Saffûreh (C. 7, 8).—A crumbled winter village, the better huts of which are inhabited by from two to six persons. There is some woody and arable land in the surrounding country, but few old remains.

Sahel el-'Arrâbeh (B. 8).—A region on the margin of the plateau on the extreme southern tongue of the Zâwîyeh el-Ghurbîyeh, with a group of magnificent terebinths. The district of Sheffet Mobarah touches it on the east, and extends as far as the ruin 'Ayûn.

Es-Sanâbir (B. 4).—A ruin with 15 winter huts, between the similarly named wâdy and the Wâdy el-Fakhûreh. The remains of antiquity are unimportant.

Seil el-Ghôr (D. 7).—A dry wâdy at Kefr el-Ma, whose upper part is also called Wâdy Muâkkar.

Seil el-Hejaf (D. 4).—A small stream, which rises

near the Jerkessen village, ej-Jueizeh, and flows past er-Rumsanîyeh into the Wâdy el-Bîreh, where, however, it soon dries up. At its discharge into the Wâdy el-Yehudîyeh it is called Seil el-Kurdiyeh, a rocky and deep river bed.

Selûkîyeh (D.4).—A ruin on the same named wâdy, not far from a spring also similarly named, situated on a small hill with a number of large unhewn building stones. The ancient remains, spreading over a large area, appear literally to have been made level with the ground, for it is only at the highest point that one can perhaps distinguish the foundations of a large square building and some smaller ones. On the southern bank of the wâdy extended remains are also to be found. At the present day only cattle-folds rise out of the ruins. Although without any further evidence than that presented by the affinity of names, I nevertheless believe to have found again the old Selucia, built during the dominion of the Selenkiden, according to Josephus ('Jewish Wars,' ii., 20), a fortified city on the border of Agrippa's kingdom. It is true that the place of modern Selûkiyeh does not exactly correspond with the statement of Josephus, that Seleucia lay on the Lake Semechonitis, whereas in fact by its position the place is naturally protected.* ('Jewish Wars,' ii., 20.)

* The present Selûkîyeh has been already mentioned by Dr. Thomson, 'The Land and the Book' (1883).

Semakh (B. 8).—A large village on the southern bay of the Lake of Tiberias, containing 65 huts, which are mostly built out of clay-bricks made from the rich soil of the Ghôr to be found at this spot, and afterwards dried in the sun. The bank of the Lake rises here by way of exception to a height of 38 feet, and makes a steep fall. The 330 inhabitants are mostly immigrants from Algiers; they speak some French, and are very affable; one also meets negroes from the Soudan. The village, like the country round the Ghôr, is the property of the Sultan; it is thereby exempt from taxation, and under a governor, and, consequently, in a much better condition than the neighbouring places. The inhabitants cultivate the tobacco plant, and grow vegetables on a large scale. Water is yielded by the Lake. In the Menzûl of the Sheikh there are several basalt columns, about 36 inches in length and 12 inches in diameter, which have been used as props for the rooms. Otherwise the village, which is lacking in building stone, has few antiquities. Burckhardt wrongly regarded the country as Tarichea ('Ritter,' o. 345, seq.). At that time the village consisted of 40 basalt and clay huts, and was governed by a subdued Beni Sakhr Sheikh; later travellers took it for Hippos.

Serâi (D. 7).—A ruin on a hill near Kefr el-Mâ. A large number of old building stones lie piled on one another, and only a few walls of a modern village are

still standing upright. At the foot of the hill, which rises 25 feet above the ground, a spring rises, surrounded by oleanders, whose water flows down over rock terraces into the Wâdy Serâî, which bounds the ruin in the south. On the western slope of this wâdy, under a beautiful tree, the Shejeret el-'Ajameh, the tomb of a Moslem saint, lies.

Esh Sha'âf (E. 4) is the name given to the entire range of the Hami Kursu, although this last name only designates one peak. Some large well-preserved dolmens are to be found on the Râs esh-Sha'âf, the most northern height. The slopes are cultivated in terraces by the Circassian, and thereby the luxuriant oak thickets are entirely done away with.

Esh-Shâfeh (D. 7).—The region between Hetal and Khurbet Sihân, on the bank of the Rukkâd.

Shâfet Kutta (C. D. 3).—The lava torrent of the Abu en-Nedâ and Tell el-'Urâm, a frightfully stony chain of hills, overgrown with oak underwood.

Shâfet es-Sindiâneh (E. 4, 5).—Two hills between the Tell el-Faras and the Tell el-'Akkâsheh. A dense oak wood must have once stood at the place of the oak underwood.

Sheffet esh el-Ghorâb (C. .D. 7).—The fall of the plateau by Khirbet el-'Arais. Many ravens (Ghurab) still fly about and nest in the basalt rocks as in olden times.

Sheffet Tabak el-Meḥâweh (D. 7).—A region between Khirbet el-'Arais and Jibîn.

Esh Sheikh Khalîl (B. 4).—A Moslem saint's grave, over-shadowed by a terebinth and an oak. Near by are the large dolmens already described (*see* p. 123), of which there are several similar ones in this district, especially on the slopes towards the Lake of Huleh.

Shejeret el-'Ameri (not *'Umeri*) (D. 6).—A tree with a Moslem tomb in the Zawîyeh.

Shejeret el-Musterâh (C. 6).—An isolated tree, on a road beyond the Wâdy es-Semakh, under which the native travellers are accustomed to rest.

Shejeret Matallat el-Bahrein (C. 3).—Some trees, in stony Jaulân, near Bêdarûs, which are well known to the natives on account of the outlook over both Lakes in the Jordan valley.

Shejeret Umm Eshsheh (C. 2).—A large fine terebinth, near Skêk. In the environs of Ard Shejeret Umm Eshsheh there are traces of an old road, with large basalt blocks on each side.

Sherîât el-Menâdireh (7, 8).—(*See* p. 38.)

Esh-Shomarîyeh (C. 4).—A lowland and a wâdy, with a spring near Nuârân.

Esh-Shukeiyif (C. 6).—A small Bedawîn village on the wâdy of the same name, containing only a few old remains. In its upper course the wâdy is narrow and rocky, but, in its lower, broad, pleasant and cultivated.

Shuweikeh (C. 4).—A ruin and a few decayed Bedawîn huts, the old site of el-Ahmêdîyeh (p. 70).

Es-Sindiâneh (C. 4).—A winter village of ten huts, in the midst of a beautiful woody country, with some old building stones.

Sirb el-Butm (B. 8).—A district of the plateau above the Khân el-'Akabeh.

Sirbet el-Kharârîb (B. 8).—A district of the plateau south of Kefr Hârib.

Sitt Iskêne (B. 7).—A destroyed hut on the northern slope of the Wâdy Fîk, near Kŭlât el-Husn.

Siyar el-'Arbâîn (D. 5).—A large number of cattle folds on the Wâdy Bêdârus. The same designation for folds is repeated near the ruins of el-Kuneitrah.

Siyar er-Rashâd (C. 7).—Folds for the Bedawîn pasturing, near Fîk, during the winter.

Skêk (C. 2).—An important ruin, covering an area of about 30 acres, and a winter village of the 'Arab el-Fadel. In the north one meets with a modern crumbled building, which was probably a Khân, as Skêk is situated on a principal road. Inside its walls the Bedawîn have built huts. The place has many cisterns, which are partly filled with water and partly choked up, and a number of large old building stones, with foundations from ancient and modern times. A pool (birkeh) is found in the east, beneath the high-lying place, and in the north lies the Jôbet Skêk, formerly a large tank cut in the lava rocks.

Skûfiyeh (C. 7).—A large flourishing village on a raised point in the western Zawîyeh, which affords a magnificent view over the lake and the plateau. It comprises 70 huts, which are built partly of mud and partly of stone, and 350 inhabitants. The village divides into an eastern and a western portion, conforming to the nature of the humpy hill on which it is built. The neighbourhood is fruitful, but somewhat lacking in water. In the east we find artificially cut caves, measuring 13 feet square which are approached by steps, and arranged as straw magazines ; the walls are, however, totally blackened. Near the graveyard, in the south of the village, there are some old stony foundations of a rectangular building, which is called el-Kŭlâh, and several choked-up cisterns. On some stones, rectilinear crosses in relief are to be found; and in the back stoves and rooms of the village a striking number of copper and, to me, unfamiliar defaced inscriptions, the casts of which were unfortunately lost in the Jordan, but will be set up again.

Sueiseh (F. 4, 5).—A village on the Rukkâd, from which the bridge across the Rukkâd already mentioned gets its name. It is reckoned with Jedur, and was not visited by me. It is said to have been bestowed upon el-Maghârbeh, Sultan of Morocco, by the Turkish Sultan, as hereditary and private property.

Summâka (C. 3).—A winter village of the 'Arab el-Fadel, consisting of 20 huts, with some trees and old

building stones on a small hill. The circumference of the old site is tolerably large. Some have found in this the place from which the Huleh lake has received its name, 'Semechonitis,' from Josephus; but the distance of this place from the Lake is too great for this assumption to gain approval. Rather might 'Semechonitis' be reconciled with the name of the springs on the northern foot of the Tell esh-Shebân, viz., 'Ain es-Semakh.*

Surramân (D. 3).—Three large Circassian villages, containing together about 200 buildings, and 900 inhabitants. Near the two south ones there is a large tank and old masonry. The antiquities have almost entirely disappeared, that is to say, they have been used in the walls of the buildings, and white-washed. According to the positive statements of the natives, who were acquainted with the ground before the existence of the villages, this was covered with the remains of a very ancient extended site.

* The above comparison is found, for example, in Dr. Thomson's 'The Land and the Book,' 1883. The last consonant in Summâka is obviously not favourable to it. The tracing back of Σαμμχωνῖτις, Σεμεχωνῖτις to the Arabic Semakh (fish) is already noticed by Reland, 'Palestine' 262, where also other explanations are to be found. The fact that the Arabic plant named Summâk is sounded by us Sumakh cannot come into consideration here at all. The Arabic Summak is σούμαχ σουμάχι; Italian, Sommaco; Spanish, Zumaque; French, Sumac. Comp. Low, 'Aramäische Pflanzennamen' (1881); see V. Hehn, 'Kultiarpflanzen und Hausthiere.'

The Bedawîn called it Surr el-Mâl (Secret of the Treasure). It was this name, so the officials of el-Kuneitrah assert, that drew the Circassians hither, who, indeed, have actually discovered several valuable finds, which partly explains the large colony and swift rise of the villages. However, to divert attention from their property, the Circassians have turned the name into Surramân.

Sûsiyeh (B. C. 7).—An extensive but completely indistinguishable ruin, on a small plain east of the Kŭlât el-Husn. Plough and hoe have worked among the old building stones, and obliterated all remains of ancient days. In the north, a crescent-shaped ridge, the Serj Sûsiyeh, which has probably slipped down from the southern slopes over the ruins, stretches along to the Wâdy Fîk. It also bears some ruins. Sûsiyeh is probably identical with the Susitha of the Jerusalem Talmud (Merrill, 'East of the Jordan'), and consequently with Hippos.*

It lies about 1,115 feet above the Lake of Tiberias, over which one gets an open view from Serj Sûsiyeh.

Es-Sûwâneh (C. 2, 3).—A stony region near Skêk.

Suweihîyah (B. 5).—A few winter huts of the Arab el-Wesîyeh, with scattered old building stones lying about.

Tâhûnet el-Ulleikah (C. 8).—A mill of the most

* With regard to Susitha, comp. 'Newbauer Géogr. du Talmud,' p. 238, seq.; Furrer, in Z. D. V. P., ii. 73 b.

primitive description, on an island in the bed of the Yarmûk, to which a part of the water power of the stream is conveyed by means of an aqueduct built in mortar. A second fallen-in mill lies somewhat more north-east, in the Wâdy Keleit. At this place the river bed is covered with extraordinarily luxuriant cane jungle.

Tât Ahsein (C. 4).—The name of a spring in stony Jaulân, on the via maris.

Tawâfik (B. 8).—A small ruin below the Khân el-'Akabeh. The small unhewn building stones lie in heaps on a hill. It is from this ruin that the projection, Râs Tawâfik, lying south-west, receives its name.

Têlestân (C. 3).—An inhabited Turkoman village, with 20 huts well built of stone and 100 inhabitants. The name is probably Persian, and undoubtedly marks an old site, near which traces of old roads are to be found.

Et-Tell (B. 6).—A large winter village of 'Arab et-Tellawîyeh, who take their name from this ruin. It contains 60 carelessly built huts on the north-west margin of the Batîhah. These huts, with extremely few antique remnants, cover the south-west slope of a small hill, past the foot of which the spring, 'Ain Mûsmâr flows, turning a mill at the Jordan. From ten to fifteen persons from et-Tell have built huts round this latter, which they inhabit permanently;

they have also laid out some gardens. At the foot of et-Tell, on the spring 'Ain Mûsmâr, stands the tomb of the Sheikh 'Abdallah; it is surrounded by a great stone circle and overshadowed by bramble bushes. East of et-Tell rises a volcanic hill, between which a small wâdy stretches.

Et-Tell has been frequently connected with Beth-saida-Julias by Seetzen, Smith, and others.

But this place appears to me to be too far inland for a fishing village, being 1¼ miles distant from the Lake. From this point of view el-Mes'adiyeh has manifestly more recommendations. Besides which, up to the present, there have not by any means been more ornaments or inscriptions discovered in et-Tell which would lead to conclusions as to the past of this place than in el-Mes'adiyeh. In one respect only, et-Tell favours the widely spread assumption, viz., in its elevated position commanding the plain. Is it not possible that el-'Araj marks the fishing village, et-Tell, on the other hand the princely residence, and that both places were closely united by the beautiful roads still visible?

In this case, if the industry of earlier days had disappeared in the former, the glory and the splendour of the seat of the Tetrarchs would have given way to a heap of wretched huts.

Tell Abu el-Ghêtâr (D. 7).—A lengthy volcanic hill, extending from north to south, on the western bank

of the Rukkâd. Broad steps lead up to its most eastern point. Above lie large shapeless stones of ruins which appear to have been ranged in a crescent round the upper end of the steps. The ruins extend on every side over several acres of the land, nearly up to Kefr el-Mâ. The Tell was probably either a watch tower or an ancient place of worship. From here to the Tell edh-Dhahab, which is about 1 mile, and covered with ruins, the whole district is strewn with scattered building stones, out of which, however, no coherent plan can be recognised, especially as the surrounding country is an unusually stony lava region. The Tell edh-Dhahab is an old site.

Tell Abu ej-Jaj (C. 3).—A small lava hill west of the Tell Abu en-Nedâ.

Tell Abu Katif (D. 4).—An isolated hill near the Circassian village ej-Jueizeh.

Tell Abu el-Khânzîr (D. 4).—(*See* under Tell Abu Yûsef.)

Tell Abu Kubeis (E. 4).—A small lava hill between Kôdana and the Rukkâd.

Tell Abu en-Nedâ (D. 3).—'The dew-endowed hill,'*

* Abu en-Nedâ is not the name of the mountain, but the name of the saint who is worshipped on the hill. This is proved without any doubt by the following names lower down of Wely and Makam Abu en-Neda. See also as regards this height of Jaulân, Wetzstein, 'Das Batanaische Giebelgebirge' (1884) 15, and for Tell Abu en-Neda in particular, the remarks of Wetzstein's in 'Delitzsch Jesaia,' p. 707.

the largest volcano in the Jaulân. Its highest point rises 4,132 feet above the Mediterranean Sea and 721 feet above the high plateau bordering it. The partially destroyed crater-belt slopes from south to north, and has a circumference of 3 miles, of which the upper crater opening has a width of 1,148 yards from east to west, and a length of 1,331 yards from north to south. The crater hollow is cultivated by the Circassians and is very fruitful. Many volcanic cones lie therein. The mouth of the crater is 612 feet deeper than the highest point of the mountain. The inner slopes of the crater fall in an angle of 34° towards the horizon; and the slopes of the mountain generally in an angle of 22°. Powerful burnt-away fragments of lava project over the crater-belt, falling below 40° or 32° towards the horizon, eastward, (Fig. 126). On several basalt fragments, which have

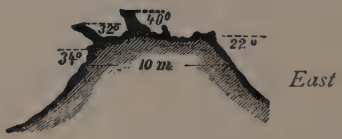


Fig. 126.

Crater of Tell Abu en-Nedâ.

been used as Bedawîn tombs, the leaf impression is clearly to be seen (Fig. 127). The western and eastern longitudinal walls of the crater have an

exactly parallel profile.* The highest point of the Tell takes in the large well, or Makam Abu en-Nedâ. This is 38 feet long, 21 feet broad, 8 feet

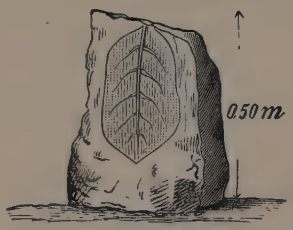


Fig. 127.

high, and has two whitewashed cupolas which can be seen in the whole country. The sepulchre of the great Moslem saint lies enveloped in silken cloth in the southern division of the building.

In the afternoon the view from this Makam is magnificent, but in the morning thick misty clouds arise from the crater and obscure the whole country till 10 o'clock in the morning. The people, therefore, view the height of the Tell with gratefulness, as it yields them, they believe, the fertilising dew. If it ceases, the destructive east wind is approaching. Constant violent winds push down the tree growth on the heights, which first develops into a fine oak wood at the southern foot. The ground covered

* With this compare my survey of the Tell Abu en-Nedâ in Dr. Noetling's 'Geologischer Abhandling uber den Dscholan.'

by the Tell is of a yellow colour. The lava streams of the Tell pour forth westwards; remains of them are to be found there in the Shâfet Kutta, and a frightfully stony lacerated district.

In the south is the small fore-lying volcanic hill, Abu Rumêt.

There is also a curious piece of antiquity to be found on the roof of the Wely Abu en-Nedâ, viz., the peculiar image, 2 feet 3 inches high, of a bird, which is fashioned in basalt, and reminds one of Egyptian or Persian art (Fig. 128). Unfortunately the head is wanting.

Fig. 128.

Closely connected with the Abu en-Nedâ is the Tell in the north, called el-'Urâm, 'heaps of wheat,' on account of its shape, whose slopes strike the

lowest portion of the crater-belt of the Abu en-Nedâ. Its great oval crater opens more to the west, and is as characteristic as that of the Tell el-Faras. Its belt is still fairly preserved, and reaches a height of 4,042 feet above the Mediterranean Sea, and is consequently only a little lower than that of the Tell Abu en-Nedâ. Its lava torrent appears to unite with that of its neighbour in the Shâfet Kutta. Its lowest western slopes are overgrown with oak underwood (*see* Fig. 129).

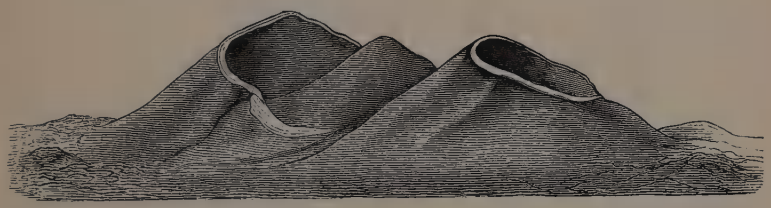


Fig. 129.

Tell Abu en-Nedâ and Tell el-Urâm, from Kh. 'Ain el-Hôr.

Tell Abu Yûsef (D. 4).—A tolerably well preserved volcano lying south of Tell Abu en-Nedâ, 3,375 feet above sea-level, with an oval crater opening westward. An old crater wall, the Dhahret Jort el-Hâkim lies in front of it eastward.

The double hump-backed Tell Abu el-Khanzîr is less expanded and more destroyed; its height is 3,819 feet (above sea-level). The lava streams of both craters are apparently confluent at ed-Delhamîyeh.

A splendid oak wood stands at the western foot of the Abu Khanzîr.

Tell Abu Zeitûneh (D. 7).—A hill with the grave of a Moslem saint beside a tree, north-west of Kefr el-Mâ. In earlier days it must have been planted with olives, to which the old mill-stones lying about testify. Many scattered old building stones are found between the Tell and the place Nâb, up to Khisfîn.

Tell el-Ahmar (C. 2).—The most imposing of the mountains enclosing the Merj el-Buk'âti.* Its peak (4,060 feet) rests on a broad base, and its slopes are thickly grown with oak underwood. Its lava torrent falls in regular terraces from the top to the west and north.

Tell el-'Akkâsheh (E.4).—A volcano with a destroyed crater opening to the west. The slopes are overgrown with oak underwood, and the highest summit (3,480 feet above sea level) with splendid oaks, which overshadow the tomb of the much-esteemed Nebi el-'Akkasheh, a nominal brother-in-law of Muhammed. The Wely has a cupola on a superstructure 15 feet

* With regard to the second half of this name, Schumacher wavers between the forms el-Buk'âti and el-Bukâ'ti. Wetzstein, 'Das Batanaische Giebelgebirge,' s. 15, writes it 'Tell Bok'âta,' without adding any explanatory observation. Schumacher's el-Buk'âti would be in agreement if the feminine form with the termination i, usual in northern Palestine, is understood.—E. GUTHE.

square; the tomb itself is covered with green silk cloth. An ancient infirm Sheikh watches over the sacred remains, and served us as a guide-book for the country. The Circassians bury around the Wely. On the northern crater girdle an easy much-frequented road leads to the large Circassian village, el-Breikeh, lying at the foot of the Tell; and towards the west there are traces of old streets leading round the Tell to ej-Jueizeh and el-Breikeh. The view from the Tell rewards one. The Shâfet el-'Akkâsheh, in the south, is a portion of the old crater zone.

Tell el-Baiyâda (C. 1).—A mountain near Mejdel esh-Shems.

Tell el-Baram (D. 3).—A small characteristic volcano of circular form north of Tell el-'Urâm. Its crater is fairly well preserved; oaks grow on its slopes.

Tell Bâzûk (C. D. 6).—An isolated hill above the debouch of the Wâdy Tell Bâzûk into the Joramâyeh, the slope and peak of which are covered with dolmens. The Wâdy Tell Bâzûk falls in vast high terraces from the plateau to the Joramâyeh. The precipitous walls of the gorge consist in part of column-shape basalt, which is continually hurled down and carried along as boulders. On the other hand, the river bed and lower walls, as much as 131 feet high, consist of limestone mixed with earthy substances. In summer a brook trickles down over the high precipices; it is,

however, dispersed on the rocks. It is said that in winter an imposing waterfall may be seen here.

Tell ed-Dara'îyeh (D. 5).—A portion of the crater wall of the el-Kuleiâh.

Tell edh-Dhahab (D. 6).—(*See* under Tell Abu el-Ghêtâr.)

Tell el-Emhîr (E. 5).—(*See* under Tellul el-Asbah.)

Tell el-Faras (E. 5).—One of the most peculiar volcanoes of Jaulân, and which, as an isolated mountain, visible from a far distance, has been already frequently mentioned by travellers. Its highest point in the south-east reaches a height of 3,110 feet (above sea level, and 787 feet above the surrounding plain), and on this top is the unadorned Moslem tomb, the Makâm en-Neby Hasan ej-Jezzar, and a graveyard belonging to the Bedawîn. The oval crater of the Tell which is still very distinctly preserved, opens towards the north. Between the Makâm and the mouth of the crater the depth amounts to 108 feet. This latter has an opening of 18 feet by a depth of several feet; the natives call it Mughârah (cave), and often dig there for supposed treasure. The crater walls fall regularly at an angle of 17° to 32°. The outer walls of the Tell, on the other hand, fall first steeply and then at an angle of 20° and 21°. Round the lowest part of the crater belt, especially in the north, there are distinct traces of a wall 3 feet in breadth, which may be followed in a circle for a length of about 525

feet, and perhaps served once as a protection to this lowest part. Or was the cauldron of the crater once used as a water reservoir (with the superstructure of the lower part) for the surrounding country? The slopes of the Tell are covered with lava slag; the ground is reddish-yellow. In the south there is a gentle hill; in the north-west a rocky crater wall lies before the Tell. The groups of small Tellûl el-Mallûl (2,965 feet) have probably arisen through its lava torrent flowing northward; their clayey, greasy, yellow soil is noticeably different from that of the Tellûl el-Humr, and their slopes are overgrown with oak underwood (Mallûl).

Tell el-Hâweh (C. 7).—Also called Tell el-Ferdâweh, an isolated hill on the debouch of the Rukkâd into the Yarmûk. It is covered with ruins. Walls of unhewn stones without mortar crown the summit; consequently the Tell was well fortified, and defended the entrance to both of the large river valleys.

Tell Krûm et-Turkoman (D. 2).—The most northerly of the Tellul el-Bukâ'ti, 4,028 feet high (above sea level), and somewhat wooded. Its northern fissured and lacerated slopes fall towards the Birket Ram, and are covered with lava slag. The name recalls the first colonization of the Turkoman in this region.

Tell el-Mu'akkar (D. 6).—An isolated hill of the Zawîyeh east of the ruin el-Kuneitrah. Two wâdies called after it begin at its southern foot—one joins

with the Wâdy esh-Shebîb ; the other, known also as Seil el-Ghôr, joins with the Rukkâd.

Tell el-Muntar (C. 6).—The hill of the watch-tower in the Zawîyeh, north of Kusr Bêrdawil, with a broad basis, on whose peak we find ruins to which a tower must have belonged. On the plain near are dolmens and old building stones.

Tell esh-Sha'îr (B. 5).—A broad hill falling towards the Batîhah ; it is somewhat cultivated.

Tell esh-Shebân (C.3).—An isolated mountain, with a demolished crater and oak trees, in the west of Jaulân. Its peak (3,021 feet above sea level) is crowned by the fallen-in square, Wely esh-Shebân, the tomb of a Moslem saint. A few yards north the Arab el-Fadel have buried those who fell in battle against the Circassians, under a white plastered tomb, visible from a far distance. A large, extremely deep, round cistern is found near the Wely ; it holds rain-water, and, like the Wely, must be very old. The slopes of the Tell are covered with lava slag and yellow soil ; the surrounding country is extraordinarily stony.

Tell esh-Sheikhah (D. 2).—Certainly the highest of all the volcanoes, its apex lying 4,245 feet above the Mediterranean Sea ; it is, however, the least characteristic of them. It is the southern spur of the Tellûl Bukâ'ti. Opposite the powerful Jebel esh-Sheikh (Mount Hermon) it receives, as the slighter

elevation, the name Tell esh-Sheikhah ('Mountain of the Old Woman').

Tell es-Sikkeh (D. 6).—A large volcanic hill north-east of Khisfîn, with ruins like those at Tell edh-Dhahab.

Tell et-Talâyâ (D. 5).—A long extended rocky hill west of Tell el-Faras. Some trees and the Wely el-Talâyâ stand on its ridge (2,608 feet).

Tell el-Urâm (D. 3).—(*See* under Tell Abu en-Nedâ).

Tell Zahmûl (B. 3).—A hill overgrown with trees on the Lake of Huleh.

Tell Zâkiyeh (C. 7).—A hill covered with ruins west of el-'Âl. The large stones are mostly unhewn; some show hollows for the pivots of Haurân stone doors.

At the foot of the hill there is an old basalt oil press-stone, 6½ feet in diameter.

Tell ez-Zâtar (D. 3).—A hill peak on the western slopes of Jaulân.

Tellul el-Asbah (E. 5).—Volcanic little hills near Tell el-Faras, with traces of ruins on their summits. The neighbouring Tell el-Emhîr is of the same nature but without ruins. The Seil el-Emhîr is a rocky-fissured river bed between this Tell and the foot of the Tellul el-Hûmr, which in winter conveys water to the Rukkâd.

Tellul el-Hûmr (E. 4, 5).—Two well-marked craters near the Tell el-Faras. The western reaches a height of

3,319 feet, whilst the more easterly and wider is only 3,076 feet above the level of the sea. The slopes are covered with red soil, from which they get their name. Both craters open south, and are pretty well destroyed. The torrent of the eastern extends to the Rukkâd ; that of the western in an indistinct south-western direction.

Tellul es-S'âlib (properly *et-T'âlib*, 'Foxhill') (B. 8). —A long low range of hills stretching from north to south, near the shore of the Lake of Tiberias, which is separated from the slopes of the Jaulân by the district Ben et-Tellûl. On its highest peak, which lies 305 feet above the level of the Sea of Galilee, or 377 feet below the Mediterranean Sea, we find a stone circle 22 feet in diameter, composed of rude blocks of basalt, towards the north, and round one terrace lower, a second larger one, 39 feet in diameter. The highest and most beautiful peak is called by the people Rujm et-Tell, and may have served as a signal point between the fort ed-Duêr and Tiberias. Continuing from here along the western margin of the hill down to es-Samra, one perceives along it a foundation 3 feet strong, with diagonal walls attaching, which are constructed of basalt blocks without mortar, and probably served as a protection to the small plateau of this hill, likewise occupied by square ruins. Presumably, therefore, there is an old site on Tellûl es-S'âlib.

Tlêl (C. 8).—A ruin with destroyed winter huts on the western slopes of the Wâdy Masâûd.

Et-Tu'enni (C. 7).—Some winter huts, with a good spring, 'Ain es-Sîdr or 'Ain et-Tu'enni. On the upper southern margin of the Wâdy es-Semakh, old building stones are to be found.

El-'Ulleika (C. 4).—A winter village of the Turkoman, consisting of ten huts. It is situated on the Wâdy el-Ulleika, which is here only 25 to 40 feet deeper than the surrounding country; but as the Wâdy Dabûra soon grows deeper and more rocky, only a few old remains are extant. The district is so plentifully provided with water that in the west the village is surrounded by a great accumulation of running water, which it is not advisable to ride through. Fields of Italian corn, thereby irrigated, yield a good crop. Opposite the village, on the other side of the valley, on the viâ maris, lies the beautifully built cupola kind of Wely of the Sheikh Marzûk. The whitewashed building serves as a land-mark for a long distance. The tomb is supposed to contain the remains of the Saint and some of his relatives; close by is a graveyard.

Umm el-'Ajaj (B. 5).—A small ruin on the slopes of the Batîhah, near which the Wely Umm el-'Ajaj stands.

Umm ed-Danânîr (D. 5).—District and hill near ed-Danurîyeh.

Umm el-Gheiyar (C. 3).—A winter village of the Turkoman, containing eight wretched huts, with few traces of building. The Bîr el-Umm Gheiyar, a moderate sized spring, lies somewhat west of the village.

Umm el-Jehîyeh (C. 7).—A village south of the Wâdy es-Semakh, on the spring of the same name, which in winter propels an extremely primitive mill. There are a few old building remains.

Umm el-Kanâtir (C. 6).—An important ruin on the eastern slopes of the Wâdy esh-Shebîb. It lies on a level plain or terrace, a little below the high plateau, consequently on a protected place, as well as one of ambush. In the south, a powerful spring flows out of the rock; it has a trough-like enclosure, and is walled over by two arches, 16 feet high (Figs. 130 and 131).

Fig. 130.

Fountain at Umm el-Kanâtir.

The masonry of the spring extended to the lava

plateau lying above; but has fallen in in the west, where it apparently joined further masonry. It consists of powerful blocks of basalt, having a length

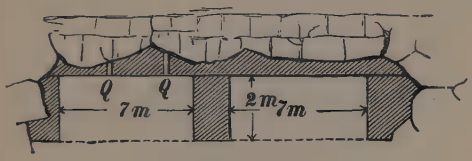


Fig. 131.
Plan of Fountain.

of 6½ feet by a thickness of 19 inches, and a height of 15 inches, which are carefully hewn and jointed, apparently without mortar. The archstones of the spring are arranged in the way shown on Fig. 132.

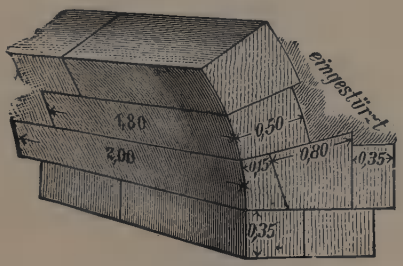


Fig. 132.
Portion of Arch.

The joints are only about one-fifth of an inch wide. Under one of the arches there lies an inscription tablet, whose signs are, however, entirely obliterated. Near here I dug a lion ornament out of the ground

(Fig. 133). Stepping northward over the source of the spring, at a distance of 110 yards away, we come upon a pile of ruins roofed with extraordinarily large

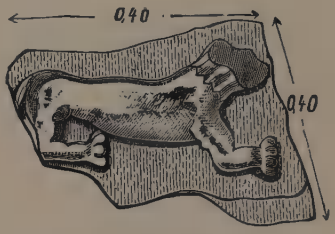


Fig. 133

basalt slabs, and probably graves might be found underneath. It was here that the eagle ornament, represented in Fig. 134, lay. Then we reach a large

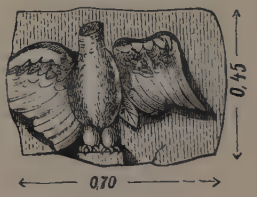


Fig. 134.

rectangular building, 48 feet square, where carefully hewn stones lie in gigantic piles upon one another, concealing the bottom of the building; it is believed that a stair running round the inner room can be distinguished. Probably it was surrounded by a piazza similar to that found in ed-

Dîkkeh ; the many fragments of basalt columns, having a diameter of 19 inches, which lie round beneath the ruins, incline one to this view. The entrance of the building (Fig. 135, A) is 6 feet wide.

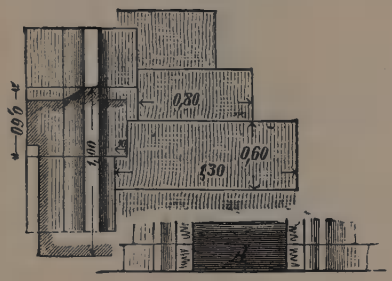


Fig. 135.

The courses and compilation of the stones near are and illustrated by Fig. 135. The joint lines are broken, the joints themselves are one-tenth of an inch wide, and mortarless ; the slabs used are of a quite unusual size, namely, 4 feet long by 23 inches in height, and 3 feet in thickness, the latter corresponding to the entire strength of the wall. The niche (Fig. 136) is

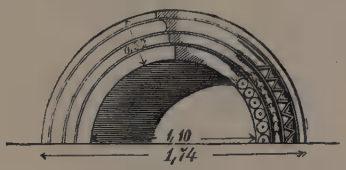


Fig. 136.

characteristic, also the base of a half column (Fig.

137), and, further, a curiously formed large stone

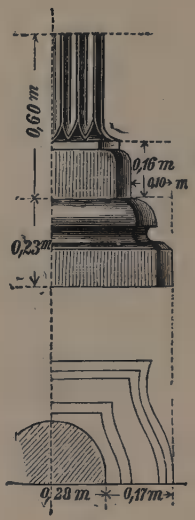


Fig. 137.

(Fig. 138), and the ornaments of Figs. 139 to 141.

Fig. 138.

Fig. 139

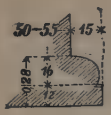


Fig. 140.

Fig. 141.

As this ruin, so rich in profiles, is, however, lacking in any inscription, it is difficult to determine the period of architecture. Its original name is evidently lost, because Umm el-Kanâtir only signifies 'Rich in arches.'

Umm el-Mutâbin (C. 7).—Destroyed Bedawîn huts, with old building stones in Wâdy Semakh.

Wâdy Abu Hamâdah and *Wâdy Abûd* (C. 7) are rocky side valleys of the Wâdy Fîk.

Wâdy el-'Ajam (D. E. 2).—The district bounding the Jaulân on the north, a portion of Jedur.

Wâdy Barbârah (B. C. 7).—The western, and Wâdy es-Sahûn, the eastern branch of the pleasant Wâdy Masâûd.

Wâdy el-Barbûtîyeh (B. 6).—The name by which the fishermen indicate the debouch of the Wâdy esh-Shukeiyif into the Lake of Tiberias; it is crowded with fish.

Wâdy Batâh (C. 7, 8).—A deep narrow valley below Dabbûseh, which unites with the Yârmûk.

Wâdy el-Halâwa (C. 3).—The upper part of the

Wâdy et-Tawâhîn, on the plain of Huleh. It begins on the Ard el-Bâlûâ, but soon, however, dries up.

Wâdy el-Hamd (B. 3).—Called higher up Wâdy Hafar. It absorbs the abundant 'Ain el-Tîneh, and flows into the Lake of Huleh.

Wâdy Keleit (C. D. 8).—A large Wâdy of 'Ajlûn.

Wâdy el-Kiblêh (C. 2).—South of Za'ôra, leading down to the Huleh marshes.

Wâdy Neskhîb (B. C. 6).—A broad partly cultivated hollow in the plateau above the Batîhah, which in winter is flooded.

Wâdy er-Rêh (B. C. 3).—A rocky and very fissured valley, which leads down the slopes near er-Râwiyeh into the Huleh plain.

Wâdy es-Saffâh, *Wâdy ed-Dâlieh* (B. 5,6), and *Wâdy es-Senâm* are the three most important water-channels of northern Batîhah, which, like the eastern Wâdy Joramâyeh flood the plain in winter, but in summer are more or less dried up.

Wâdy es-Samâr (C. 8).—A steep rocky wâdy near 'Ayûn, conveying some water, and discharging in the Wâdy Masâûd.

Wâdy Sêisabân (A. 8).—The upper part of the Ghôr and the Jordan, near the Lake of Tiberias.

Wâdy es-Semakh (C. 6).—A valley* whose importance

* Ritter ('Erdkunde' xv., 1,287), according to De Bertou, states "Wâdy es-Semak is a long valley which perforates the whole system of chalk-mountains on the east coast separating it from

for Jaulân has already been mentioned, and correctly recognised by Seetzen and De Bertou (1839); and is, indeed, of priceless significance for a plan of railway and carriage roads. No other valley of the upper Jordan land is suitable for this in an equal degree, for all the others are either narrower, or have a too precipitous crossing up the plateau.

The size or breadth of the Wâdy es-Semakh amounts to 1½ miles. The outer margin of the valley sides is encrusted with basalt lava, whilst chalky slopes, especially in the south of the river bed itself, fall quite gradually. A small stream gushes over the valley bottom, which likewise consists of soft white chalk rocks.

The length of the principal valley from the mouth upwards is 4 miles. Then it contracts and divides into two arms, the northern Wâdy esh-Shebîb and the southern Wâdy ed-Difieh, with the Wâdy el 'Âl. Both arms commence a little way from the Tell Mu'akkar, and are precipitous and rocky, like all other valleys of the Jaulân. In the principal valley, which for civilising enterprises alone comes into consideration, there are many ruined places to be found, a proof that the worth of this valley was already in

the Jaulân and the Haurân. The Arabs name this cutting the road of Haurân (Derb Hauran). Wady es-Samak in a future civilisation of this tract of country will be the most important unloading place for Haurân."

earlier days recognised and turned to account. On the southern slopes there is water, and to spare, and the ground is very productive. Single oaks, bramble, and other underwood, show that that wood growth was at one period not lacking (*see* view of Wâdy es-Semakh, from el-'Awanîsh).

Wâdy es-Serîr and *Wâdy es-Serîs* (C. 6, 7).—Small water channels on the southern slopes of the Wâdy es-Semakh.

Wâdy esh-Sheikh-Ibrahîm (C. 5).—It begins near the group of trees of the Wely esh-Sheikh-Ibrahîm not far from Wahshara, and flows as the Wâdy es-Selba into the Wâdy Yehûdîyeh. Its volume of water is not inconsiderable.

Wâdy el-Washâsha (C. D. 4).—Further up Sei l'Ain Eshsheh, a frightfully fissured and wild valley, which joins with the Wâdy er-Ruzanîyeh.

Wakkâs (C. 8).—A small ruin with some Bedawîn huts on a hill in Wâdy Masâûd. This name also recalls the Wakûsa mountains occasionally mentioned in the battle on the Yarmûk.

Washarah (C. 5).—A winter village of the Bedawîn, with some ruins on a wâdy of the same name.

Wâsit (C. 3).—A shapeless ruin on the stony lava district of Tell el-Urâm, near to which is a spring.

Wely Jâfer (C. 7).—The tomb of the wood saint of Fîk, with a beautiful terebinth.

El-Yâkûsah (C. 7).—A village consisting of 26 huts,

of which two in the south, built of stone and clay, are of remarkable size, and contain 120 inhabitants. On both sides the Wâdy es-Sahûn rises, being the upper rocky portion of the Wâdy Masâûd. The banks of the wâdy are rugged, the bed falls in terraces to a considerable depth, but widens below and gets pleasanter.* Some pomegranate trees adorn the village, which has otherwise a miserable appearance. The neighbourhood of el-Yâkûsah presents an unusual number of round and rectangular stone piles a few feet high, and enclosed by large unhewn blocks of rocks. The enclosed circle or square has a diameter of 6 to 10 feet and contains either a heap of carefully erected stones or is quite empty. In the last case we have probably remains of Bedawîn graves; on the other hand, in the former we are more reminded of the cromlechs or dolmen, although the characteristic basalt slabs and terrace formation are wanting here. Their design is most like the dolmens at Sheikh Khalet (*see* under Dolmens).

One of the most marked of these memorials is the

* Flugel, in his 'History of the Arabians,' p. 108, speaks on the occasion of the battle on the Yarmûk of "a valley sloping towards it which with its hill Wâkûsa form a gorge" into which the Byzantines were driven and lost. Probably this name is identical with the modern el-Yâkûsa, from which it differs only in the change of the initial letter. Then the valley would earlier have borne the name of the place Yakusa for all the channels of the rivers, almost without exception, even down to the present day, receive the name of the place they touch.

Rujûm el-Khiyar, south of el-Yâkûsah, close to its steep fall into the Yarmûk. The enclosing blocks of stone, reaching a cubic metre in size, are well filled up. The interior of the circle, which is 6½ feet high and 12 feet in diameter, is entirely filled up with large and small stones. Neither mortar nor any packing is to be discovered ; the joins of the masonry are distant and irregular, without, however, any detriment to the solidity of the structure. These stone heaps are generally erected on dominating points of the high plateau.

El-Yêhudîyeh (C. 5).—A large ruin on the Wâdy el-Yehudîyeh. On the north end two large newly-built corn magazines stand, which are only used during the harvest. The ruin lies on a narrow ridge, scarcely 220 yards wide, whose eastern slope is bounded by the depth of the perpendicular basalt rocks of the wâdy of the same name, whilst its western flank is bounded by a hollow, at its discharge into the Wâdy el-Yehudîyeh, but equally steep. The ridge runs over the junction of the two valleys to an acute triangle, upon the sharp edges of which a strong wall or tower, whose direction can be traced with but few interruptions round the entire ruin. These stones are rude and fitted together without mortar and form powerful walls, 6 feet in thickness, on the less protected western side, in contradistinction to walls of slight thickness on the side which is inaccessible

by nature. In the north the mountain ridge widens to a plateau, upon which there are indistinct traces of the kind described, whereas remains of former buildings on a square plan are still to be found. The chamber enclosed by the wall is covered with ruins of all kinds; most of all one sees large hewn basalt building stones, lying in heaps near greatly weather-worn shafts of columns. Besides these, most peculiar capitals (Figs. 142 and 143) are to be found, which

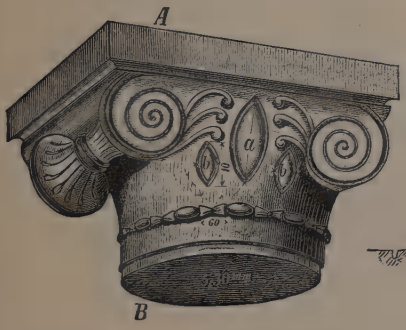


Fig. 142.

Capital at el-Yehudîyeh.

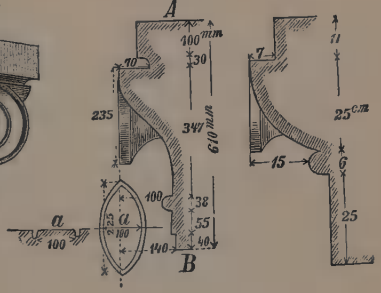


Fig. 143.

Section of Capital.

exhibit a very primitive application of the combined Ionic and Corinthian styles. These are already very weather-worn, and like the other ruins point to a great age. Near the column remains two well preserved top stones lie; they are of the same shape and still in their original position, opposite one another (Fig. 144). If the ruins on the surface are not important, they at

any rate exhibit characteristic construction and peculiar forms found nowhere else in the Jaulân. Excavations will certainly bring to light more important discoveries, and by this means yield information as to

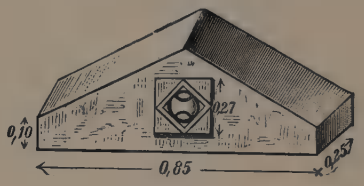


Fig. 144.

Top-stone at el-Yehudîyeh.

whether el-Yehudîyeh, its name and tradition, are of Jewish origin or not. I was unfortunately unable to examine the inner of the two corn magazines, as the openings were barricaded. According to the statements of the natives, inscriptions were found below the ruins, but no one could tell me where these were lost.

Zakîyeh (B. 6).—The name of the bay indenting into the Batîhah ; the water is uncommonly slimy and dirty.

Za'ôra (C. 2).—A well built Nusairier village in the northern extremity of the Jaulân, making a cresent round the fall of the slope. It comprises 65 huts with about 350 persons, who consequently live close together. They cultivate the Huleh marshes with rice, and the country round the village with famous tobacco. The

roofs of the houses bear huts made of branches or poles. The village itself has no living water, but several old cisterns. The Sheikh is supposed to have discovered an old aqueduct at the slope, where in winter a small stream gushes forth. The old building stones lying round do not, however, afford any certain confirmation of this assertion. The nearest spring is 'Ain Fit. To the east a huge old terebinth stands shading a decayed Moslem tomb, called el-'Adjami. Otherwise, Za'ôra possesses very few remains of antiquity.

Ez-Zârûra (C. 3).—A rocky district and a Bedawîn graveyard near er-Râwiyeh, with a Zârûr bush (white thorn) the last remnant of a large thicket.

Zeita (C. 6).—A small Bedawîn village with some ruins, in the neighbourhood of the Wâdy Joramâyeh.

*Zôr en-Nîs, Zôr Ramadan, Zôr Abu Kubzeh** (C. 8), *or Zôr er-Riyâs* (D. 7) are collections of rock projections with small basalt terraces on the Yarmûk.

* Zôr en Nîs, Zôr Ramadan, or Zôr Abu Kubzeh.

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*Jebel'Ain es Sâkhneh	جبل عين الساخنة		161
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Jebel Kurein Jeradeh	جبل قرين جرادى		162
Jebel Mokâdlah	جبل موقع عدلة	Mountain of the Fall of A.	162
*Jebel Seil el Aswad	جبل صلّ الاسود	Mountain of the Black Vipers	162
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*Makht. el Ikful	مخاضة القفول	The Ford of the Caravans	218
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*Merj el Katreineh	مرج القطرانى		78
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*Môbarat 'Ayûn	موبرة عيون		222
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*Mukatt ej Jamûsîyeh	مكت الجاموسيّة		222
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*Rân Jîbîn	ران جبين	Trough ? of Jibîn	163
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*Râs el 'Akabeh	رأس العقبة	Summit of the Ascent	182
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Rujum el Fâr	رجم الفار	Stone-heap of the Mice	230
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*Serj Sûsiyeh	سرج سوسية		244
*esh Shââf	الشعاف	The Summits	239
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el Umm Jehîyeh	المجهيّة	The fallen in or fallen down (Schum).	C 7
Umm el Kanâtir	ام القناطر	Possessing arches	265
Umm el Mutâbin	ام المتابن	Magazines with chopped straw	265
*Wâdy Abu Hamâdah	وادى ابو حمادة		265
*Wâdy 'Abûd	وادى عبود		265
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*Wâdy Barbâreh	وادى بربارا		265
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*Wâdy el Bîreh	وادى البيرة		237
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Wâdy Esfera	وادى الصفيرة		C/D 6
Wâdy el Fâjer	وادى الفاجِر		136
*Wâdy el Fakhureh	وادى الفاخورة		147
Wâdy es Feiyat	وادى الصفيّات		136
Wâdy Fik	وادى فيق		265
*Wâdy el Ghadiriyeh	وادى الغديريّة		147
Wâdy el Gharâbeh			169
Wâdy el Halaweh	وادى الحلاوة		265
Wâdy el Hamd	وادى الحمض	Valley of the Bitter Herbs	265
Wâdy el Hamrâ	وادى الحمراء		D 2
*Wâdy Hîtal	وادى حيتل		163
Wâdy el Hôshaba	وادى الحوشبة		31
*Wâdy Inkheli (Umm Kheli)	وادى نخيلة (امّ خيلة)	Valley of the Little Palm ?	C/D 5
*Wâdy ej Jâmûsîyeh	وادى الجاموسيّة		200
Wâdy Jeraba			160
Wâdy Joramâyah	وادى جرماية		266

Transliteration.	Arabic.	Translation.	Page.
Wâdy ej Jummeizeh	وادى الجمّيزة	Sycamore Valley	B 6
*Wâdy el Kaseibeh	وادى القصّيبة		170
Wâdy Kefr Naphakh	وادى كفر نفّاخ		178
Wâdy Keleit	وادى قليط	Keleit is the name of the Tribe	266
Wâdy el Khidr			D 7
Wâdy el Kibleh	وادى القبلى	South Valley	266
Wâdy el Kuneitrah	وادى القنيطرة		209
Wâdy el Masâûd	وادى المسعود		269
Wâdy el Mesâdîyeh	وادى المسعديّة		221
Wâdy Mûakkar	وادى معكّر		236
*Wâdy el Mŭgheîyîr	وادى المغاير		99
*Wâdy Musmâr	وادى مسمار		D 6
Wâdy Neskhîb	وادى نشيب		266
Wâdy er Rîh	وادى الريح	Wind Valley	266
Wâdy er Ruzanîyeh	وادى الرزنيّة		81
Wâdy es Saffah	وادى الصفا		266
Wâdy es Sahun	وادى الصحون	Plate ? Valley	269
Wâdy es Sakukeh			B 3
Wâdy es Samâr	وادى السمار		266
*Wâdy es Sanâbir	وادى السنابر		130
Wâdy Seisaban	وادى سيسبان		A 8
Wâdy es Selba	وادى الصلبة		268
Wâdy es Semakh	وادى السمك	Fish Valley	267

Transliteration.	Arabic.	Translation.	Page.
*Wâdy Serâî	وادى سرعة		239
Wâdy es Serîr	وادى السرير		268
Wâdy es Serîs	وادى السّريس		268
Wâdy esh Shebîb	وادى الشبيب		267
Wâdy esh Shukeiyif	وادى الشقيّف		265
*Wâdy Sîhân	وادى سيحان		193
Wâdy es Sunâm	وادى السنام	Valley of the Camel's Hump	28
Wâdy et Tâwâhin	وادى الطواحين	Valley of the Mills	266
*Wâdy el 'Ulleika	وادى العلّيقة	Blackberry Bush Valley	259
*Wâdy Umm Khêli			161
Wâdy Washarah	وادى وحشرة		268
Wâdy el Washâsha	وادى الوشاشة		268
Wâdy Z'aôra			C 2
*Wâdy el Yehûdîyeh	وادى اليهوديّة		268
Wâdy Zawatîn	وادى الزواتين	Valley of the Olive Trees	C 4
Wakkâs	وقّاس		268
Wâsit	واسط	The Middle	268
Washarah			268
Wely Akkâsheh	ولىّ العكّاشة		252
Wely Jâfer	ولىّ جعفر		268
Wely esh Sheikh Ibrâhîm	ولى الشيخ ابرهيم		268

Transliteration.	Arabic.	Translation.	Page.
Wely esh Sheikh Muhammed el 'Ajameh	ولى الشيخ محمد العجمى		170
Wely esh Shebân			C 3
Wely Umm el 'Ajâj	ولى ام العجاج		B 6
Wely et Talâyâ	ولى الطلايع		257
Yâkûsah	الياقوسة		268
el Yêhudîyeh	اليهوديّة		270
Zakiyeh	زاكية	The Name of the Women	272
Zâôra	زعورة		272
ez Zârûra	الزعرورة	The White Thorn	273
ez Zawîyeh el Ghurbîyeh	الزاوية الغربيّة	The Westerley Corner (District) Schum	10
ez Zawîyeh esh Shurkîyeh	الزاويّة الشرقيّة	The Westerley Corner (District)	9
Zâwiyet ej Jûkem	زاوية الجقوم		B 7
Zeita	زيتا		273
Zôr Abu Kubzeh	زور ابو قبزة	The Thicket of the...	273
Zôr en Nîs	زور النيس		273
Zôr Ramadân or Ramlîyeh	زور رمضان (رملّية)		273
Zôr er Riyâs	زور الرياس		273

Names of the Bedawîn Tribes who winter in the Jaulân according to the Official Register.

Transliteration.	Arabic.	Number of Tents (5 persons to a Tent.)
'Arab el-Abu 'Asî	عرب الابو عاصى	6
'Arab el-Abu 'Eid	عرب الابو عيد	12
'Arab Abu 'Eid Hameideh	عرب ابو عيد حميدى	8
'Arab el-Abu Hajâ	عرب الابو حيا	30
'Arab Ahmed esh-Shibleh	عرب احمد الشبلى	6
'Arab el-'Akeidât	عرب العقيدات	300
'Arab el-Bakkâr	عرب البكّار	90
'Arab Beni Nimr	عرب بنى نمير	120
'Arab Beni Rabi'a	عرب بنى ربيعة	40
'Arab ed-Dheiwât	عرب الدهيوات	4
'Arab el-Hadâideh	عرب الحدايدة	8
'Arab el-Hamâmra	عرب الحمامرة	45
'Arab Harb	عرب حرب	120
'Arab Jallâli Wa-'azi	عرب جلّالى وعزى	16
Arab ej-Jamaileh	عرب الحمايلة	45
'Arab el-Kabaireh	عرب الكبايرة	10

Transliteration.	Arabic.	Number of Tents (5 persons to a Tent.)
'Arab el-Manâfeh	عرب المنافى	8
'Arab el-Merâzka	عرب المرازقا	50
'Arab en-Nu 'eimât et-Tâ'a	عرب النعيمات الطاعة	35
'Arab er-Ramla	عرب الرملة	30
'Arab es-Seikât	عرب الصيكات	4
'Arab Shâm	عرب شأم	8
'Arab esh-Sharâhleh	عرب الشراحلى	30
'Arab et-Tahaineh	عرب الطحاينة	12
'Arab Turkoman Suweidîyeh	عرب تركمان سوادّية	18
'Arab el-Umhammadat	عرب المحمّدات	6
'Arab el-'Utba	عرب العتبة	22
'Arab el-Wâsit	عرب الواسط	45
'Arab Wesiyet el-Gharâba	عرب ويسيّة الغرابا	20

THE END.

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